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The Journal of the Fire Protection Profession

MARCH 18, 1931

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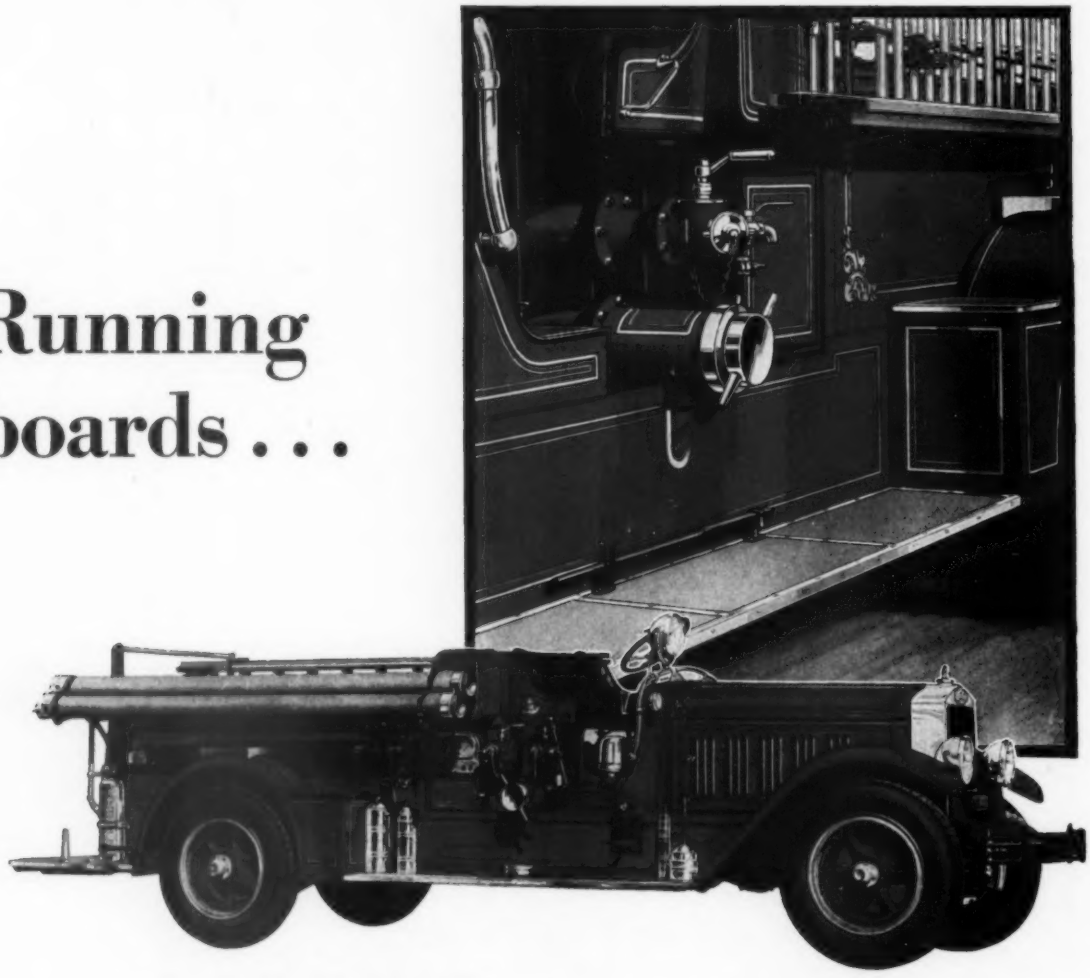

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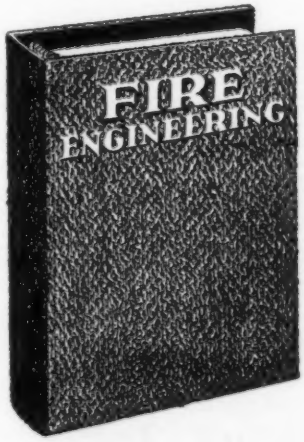

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FIRE ENGINEERING

(A Consolidation of FIRE AND WATER ENGINEERING AND THE FIRE ENGINEER)

The Journal of the Fire Protection Profession

VOLUME LXXXIV MARCH 18, 1931 NUMBER 6

Omaha Firemen Now Receive Vocational Training

Originally Organized Upon a Purely Voluntary Basis, the Training Is Now Made Part of Fire Duty—Plan Will Be Further Developed

By J. R. HAWKE, Director of Vocational Education, Board of Education, Omaha, Neb.

One of the members of the city Fire Department of Omaha, having called the attention of the author of this article to a previous article on the education of firemen appearing in FIRE ENGINEERING, *it was suggested to him that he prepare something along the same lines in regard to the work among the Omaha firemen. The following interesting description of what is being accomplished in that city is the result:*

VOCATIONAL classes for firemen are being organized for the city Fire Departments in various parts of the United States. Many of the classes are conducted in training centers, usually located at the State Colleges. A few classes in the form of conferences of officers and firemen are held by conference leaders of known ability. The conferences range from a few days to several weeks in duration and are usually held for the purpose of determining course content. In some instances vocational classes for firemen are held at the fire stations. The circumstances and conditions existing in any particular community will determine which type of class organization will be most effective.

In submitting the accompanying article, Mr. Hawke writes:

"It is heartening to see how the firemen are responding to educational programs. I think that vocational classes for adults are assuming more and more importance. One of these days we will find our vocational programs accepted as a matter of course and considered indispensable."

Preliminary Promotional Activities

In cooperation with the Nebraska State Department for Vocational Education, the Omaha Public Schools in November, 1930, attempted to organize a number of classes for the city firemen on a purely voluntary basis. No activity of this nature had ever been promoted before in Omaha. The new project was presented to the firemen and the advantages of vocational training were pointed out to them. Every fire station was visited at least twice, for the purpose of describing the educational program, and the men were encouraged to discuss the new proposition.

One-Third of Fire Department Personnel Registers

As a result of the preliminary promotional activities, approximately one-third of the total fire department personnel registered for the courses in "Fire Prevention" and "Chemistry of Fire." Class schedules were arranged and posted in every fire station. The classes were held in the Omaha Y. M. C. A. building, located in the approximate center of the city and for two weeks everything went along very nicely. Then some of the disadvantages of voluntary enrollment and attendance made their appearance.

The Omaha Fire Department operates on a 24-hour on duty and 24-hour off duty system. Over a period of twenty-four hours, a fireman may be a very busy person. This is especially true in the winter time when there are more fires to fight, as a rule, than in the summer time. Thus it happened that many of the men were not able to attend the classes as scheduled. It was impossible to arrange a schedule flexible enough to meet all the requirements of the situation and the end of our venture in this type of vocational education seemed to be just around the corner.

Chief Comes to Rescue When Difficulties Appear

At this stage in the proceedings, Fire Chief P. M. Cogan came to the rescue. Chief Cogan had been interested in the program from its very start but did not have much confidence in its voluntary aspect. He said it would not work and it did not. However he insured success for the educational program by saying that if the men could not attend the classes as they were planned he would take the classes to the men. The voluntary classes were discontinued for the time and the instructors now hold classes in the various fire stations.

The decision changing the program to this extent was a very important one and it had far reaching effects. Instead of the men attending classes on their own time they now go to school on the City's time. The enrollment includes the whole fire fighting personnel instead of just a portion of it. Now that class attendance is obligatory, the values of the courses given are increased tremendously because they become part of the work that must be satisfactorily accomplished if a fireman wishes to advance in the service. And this is rightly so.

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No longer is it considered a high honor to throw the largest amount of water on a fire. Firemen now fight fires scientifically and a small fire extinguisher oftentimes does the work that a whole hose company formerly performed. The fire department is trying to cut down fire losses by reducing the damage occurring from the water and other materials to put out the fires. Most important of all, the fireman of today is actively engaged in teaching and preaching "Fire Prevention" toward the end that there may be fewer fires and less loss of life and property.

That is the purpose for which the course in "Fire Prevention" was first organized. When a fireman has satisfactorily completed the course he will know how to make an inspection, to make reports, to intelligently answer the questions asked him by citizens, to operate and install the new devices that are constantly being introduced and to better handle his own problems. He will be more interested than he ever was in school fire drills, hospital drills and the work of the Junior Fire Patrols.

"Chemistry of Fire" Not Too Technical

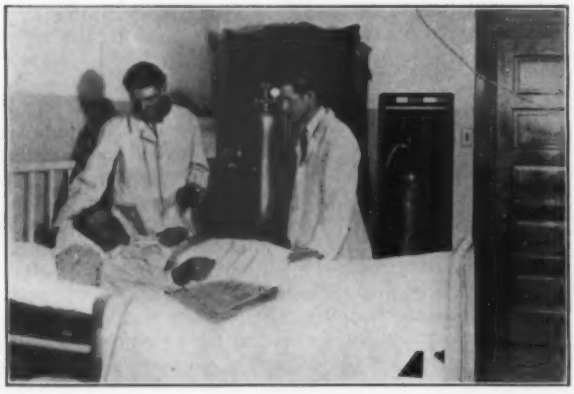
It is the duty of the fireman to fight fires and put them out with a minimum loss of life and property. His life is constantly in danger and he is often confronted with situations that demand quick thinking and action. Every fire produces a large number of chemical reactions and some of those are especially dangerous to the firemen. Drug stores, warehouses, laboratories, and many other establishments present fire-fighting difficulties that are enormous.

If a fireman has some knowledge and understanding of the ordinary chemicals with which he comes in contact he may be able to take care of himself a little better. The course in "Chemistry of Fire" is designed to help the men in this respect. It is not a technical course, a college course nor a chemistry course. It is explained and discussed in terms that the layman can understand and deals with practical chemistry in a simple manner. As the course proceeds the men learn to distinguish various dangerous substances by sight, odor, or other methods of identification and are told how such substances may be handled with least danger. It is not the intention, by any means, to try to make the men *afraid* of a fire because of its possible dangerous chemical reactions. It is hoped that they will have a better understanding of such matters and that they will not unknowingly blunder into dangerous situations that can be averted.

Additions to Courses Contemplated

The vocational program in Omaha has just started. Many new projects are contemplated. A class in "First Aid" is in process of organization at the present time. It is hoped that all Chiefs' drivers may eventually be able to handle accident cases in an emergency and that all of the firemen may become familiar with first aid methods. Other classes under consideration at the present time include "Care And Use of Equipment," "Modern Fire Fighting Methods," "Hydraulics" and "Drill." These will be started as soon as it is deemed advisable to do so.

It has often been said that no two fires are alike. We can learn enough from fires, however, as to what causes them, how they act and how they may be handled, to be of added service to our communities.



Volunteer Firemen Save Life of Big Game Hunter

Members of the Volunteer Fire Department in Prescott, Ariz., succeeded in keeping alive a big game hunter who was stricken in his home in Mayer. The man was suffering from a collapsed lung and when brought to the hospital he appeared to be on the verge of death. The inhalator squad of the Fire Department rushed to the hospital with an inhalator and, working in shifts, succeeded in pulling the patient through the critical period.

PORTLAND FIRE COLLEGE ANALYZES FIREMAN'S JOB

Work to Be Extended for All Departments in State of Oregon—Task Includes Large Amount of Pioneering — Sample of Analysis Sheets

By O. D. Adams,
State Director, Vocational Education, Salem, Ore.

THERE are two things essential in the development of a training program for city firemen. One is that they have information about their job and that this information be in form to use, and the other is that they know how to give the information to others. In the December 10 issue of FIRE ENGINEERING, there was an article on the subject of a systematic training program for firemen which concerned itself mostly with how to teach; in other words, how to put over the information that the average fireman possesses about his job.

Two Men Backing Job Survey

O. D. Adams and Battalion Chief E. L. Boatright, Director, Portland Fire College.

The Oregon State Board for Vocational Education, through O. D. Adams, the director, has recently been analyzing the fireman's job in the Portland Fire Department, under the direction of Battalion Chief E. L. Boatright, with the intention of utilizing the material to form a basis of a course of instruction for the Portland Fire Department. The same thing is to be done for the fire chiefs and captains of the entire state of Oregon at a summer conference to be held under the auspices of the State Fire Marshal's office, the Portland Fire Department and the Oregon State College, some time in the late summer. Since this work is the first of its kind to be done, at least in Oregon, it is more in the nature of pioneering, and is in no way represented here as being complete. So far progress has been made in making an analysis of the job of hoseman and it is given here as illustrative of the process and the material so far obtained.

It is expected that the work will be carried on until a complete training program has been worked out for this state. In analyzing the job or hoseman, it was discovered that his duties were numerous and covered a wide field which has

(*Continued on page* 213)

Salvage Operations at Fires

Lessons Giving Instructions as to Methods Considered Good Practice in This Work — Best Arrangement of Goods for Salvage Purposes

(Continued from last issue)

IN considering the effect of a fire on various stocks it is generally conceded that the greatest salvage value will ordinarily be found in staples, for the reason that these can be reclaimed and have a market even at a reduced price. This is particularly true of dry goods. Novelties, generally bought for gift purposes, lose their entire value when damaged. Among the many things affecting salvage value is the fashion of the day or style; a change of style may reduce the value of an article to practically nothing. Shopwear, indicated by faded colors, tarnished metallic embroideries, and soilage, to mention a few of the common effects, must be considered in determining values. In the following list little attempt has been made to estimate the value of salvage, the discussion being limited to cause and effect. (List is continued from last issue).

4. Coffee: Coffee is packed by jobbers in many different kinds of packages. Expensive coffee for retail often comes packed in tins, which is intended to retain the flavor; this package is waterproof. Other grades for retail are packed in cardboard packages and paper bags, which offer little protection to the contents. For the wholesale trade coffee is packed in burlap bags. Roasted coffee is more susceptible to water damage than green coffee. Green coffee may be wet without damage, if it is dried and roasted within a reasonable period of time. Roasted coffee will quickly mildew and is worthless in this condition. Coffee is a commodity frequently subjected to fire and water damage due to the fact that the majority of jobbers do roasting and this process presents a serious fire hazard with resultant numerous fires.

Roasted coffee for retail should be packed in tins, or in bags lined with waterproofed paper. A waterproofed inner lining should be provided for burlap bags intended for roasted coffee.

5. Colored Materials: Colored materials are peculiar in some of their characteristics. Many of the colored wash fabrics will not run when washed because they are carefully rinsed and dried. If wet and allowed to stand in this condition colors will spread.

Embroideries may have a brownish cast sometimes attributed to smoke and water stain but often the result of age. Embroideries stained by water will have an uneven color.

White materials, intended to be washed, are sometimes assumed immune to water damage, but there is always the danger of mildew and all material that is wet should be throughly dried.

6. Corsets: Because of the steel frames and brocaded materials used corsets are particularly subject to water damage. Rust will work its way through stock which has been wet and heavy losses can be expected in stocks of this kind, particularly in the cheaper grades and unless the stock is adequately boxed.

7. Crockery and Glassware: The chief danger in stock of this kind is breakage, although there is also an expense due to handling wet or smoked crockery. Tables used for the exhibition of fragile merchandise such as crockery and glassware should be constructed with a pipe frame running above the table and fastened to uprights at the center of each end. This rack can be used for hanging advertising literature or other displays and will facilitate the spreading of salvage covers without breakage or delay.

8. Electric Floor Lamps: One of the stocks most difficult to protect is that of electric floor lamps. Floor lamps are often found in large numbers with shades in place, and when in this condition present a most difficult covering problem.

Only samples should be placed on display. The shades should be stored in cases and the stands remain wrapped and stacked in a manner convenient to cover.

9. Fibers: The term combustible fibers covers cotton (including linters and cotton waste), sisal or henequen, ixtle, jute, hemp, tow, cocoa fiber, oakum, baled waste, kapok, Spanish moss, and excelsior. These fibers are usually formed into bales and may be partly covered by burlap or other wrapping. Their hazardous characteristics are, according to the nature of the fiber, a high degree of combustibility, absorption of water, tendency of some fibers to swell, and the bursting of bales by burning of the confining bands or ropes.

All such materials stored in the open should be enclosed in tarpaulins. In warehouses bales should not be tiered or piled and should be separated into small units by aisles and clear spaces. Where bales must be tiered or piled the stability of the pile is of great importance.

Bales should be grouped to permit covering with salvage covers.

Cotton in bales gives a varying salvage dependent largely upon the quality of the cotton and the state of the market.

10. Floss and Down: Floss will mat if wet and articles stuffed with it usually suffer severely. Down and kapok can ordinarily be renovated.

11. Flour: Flour in barrels and bags presents a peculiar resistance to water. A barrel or bag of flour coming in contact with water will immediately form a thick paste on the side exposed, and this in turn tends to prevent the water and smoke taint penetrating the entire barrel or bag. For this reason a large salvage is often realized from such stocks. Skidding and covering the stock and keeping piles away from the side walls is recommended to facilitate salvage work.

12. Foodstuffs: Foodstuffs suffer severely in fires as a rule because they are exposed to smoke and water taint. Bacon, meat, solid fats, butter and cheese may give little or no salvage even if not actually attacked by flame if the fire has been bad, or if there has been much smoke. Greasy smoke causes the worst damage. The pure food laws largely determine the precentage of salvage permissible in foodstuffs.

13. Furniture: Crated furniture when wet at fires is liable to serious damage unless the wrappings are removed immediately. Such stock is wrapped in excelsior with a binding of ordinary paper or burlap and crated. When allowed to remain in a wet condition or even partially wet, the varnish spots and the glue softens, causing serious damage with small salvage possibilities. A wrapping of waterproofed paper should be used.

14. Furs: The damage to furs and skins is usually considerable, when they have been subjected to heat or smoke. Water has a bad effect on the natural grease in dressed fur,

The accompanying instructive symposium on Salvage operations at fires has been furnished through the courtesy of Chief Edward H. Warr, of the Baltimore, Md., Fire Insurance Salvage Corps. It comprises Lessons No. 21 and 21A of the Salvage Corps' School of Instruction. This lesson was attended by practical demonstrations given by the members of the Salvage Corps under the direction of Chief Warr. The lesson and demonstration was well received by more than 150 members of the various volunteer fire companies throughout the state of Maryland.

especially if it has been dyed or faced, making the fur hard and loosening the hair.

15. Gentlemen's Furnishings: Men's laundry goods, such as shirts, collars, and cuffs, when damaged, will always sell at a fair price, and in the work shirts the damage is very slight.

Derby and stiff hats are almost worthless if badly wet or smoke stained, but the damage to fedoras, cloth and soft hats is much less since they are more easily reconditioned.

Work goods of all kinds, trousers, shirts, jumpers, overalls, and gloves are all damaged to a less extent than dress garments. A small damage in a work garment might easily be a large damage in a dress garment. Work trousers, overalls, and jumpers, as a rule have metal buttons, and unless these are cared for will rust and rot the cloth next to the button, thus materially damaging the garment.

Suspenders, arm bands, garters, and any article with rubber in it will be badly damaged, as extreme heat will take the life out of the rubber.

Cheap jewelry and cuff buttons are mostly of metal and will tarnish.

The colors in fancy neckwear are likely to run if wet. The plain colors are less susceptible to damage. Men's ties are frequently filled with a wadding or padding, which if wet renders neckwear useless.

16. Gloves: Leather gloves are very susceptible to damage principally due to stitching rotting and clasps or fastenings rusting. Dress and walking gloves, if damaged, are very hard to sell unless they have sufficient weight to be used as working gloves.

Damaged gloves other than leather will sell at reduced prices.

Gloves should be salvaged promptly, and as kid gloves sometimes mildew in stock, care should be taken to differentiate this damage from water damage.

17. Grain: Grain is usually seriously affected by fire; is subject to swelling which may burst the walls of the building in which it is stored, and generally ferments. Salvage should be handled promptly.

Chief Grant of Beverly, Mass., Oldest Active Chief

Chief Robert H. Grant of Beverly, Mass., eighty-five years old, has been re-appointed head of the Fire Department. He joined the local fire service as a torch boy when the apparatus consisted of handtubs. He is considered the oldest active Fire Chief in this country.

18. Handkerchiefs: These when smoked or water stained are generally sold "as is," although the more expensive grades are sometimes laundered.

19. Hardware: Hardware, both finished and unfinished, is very susceptible to water damage. Frequently stocks of hardware become damaged by their remaining in damp places without actually coming in direct contact with water. In such cases the only possible method of salvage is to heat and ventilate the premises by forced ventilation, using portable fans, and removing the water from the premises as quickly as possible. Many hardware manufacturers have taken this damage into consideration, not from the viewpoint of fire loss, but from the standpoint of shipping. Stock in transit frequently remains in damp freight houses and may be subject to moisture and dampness on drays, etc. To guard against this danger many articles are wrapped in oiled paper. Hardware manufacturers could carry this practice further and include other articles, such as screws, bolts, nuts, nails and other rough hardware now being packed in common cardboard boxes and kegs which might be lined with heavy waterproof paper.

Proper shelving and bins should be constructed to accommodate this class of stock in wholesale and retail stores.

20. House Furnishings, Table Linens, Towels, and Domestic: Sheets pillow cases, table linen, and towels are only damaged by water, as far as salvability is concerned. Towels sometimes have colored borders and these may be affected.

Silkolines and cretonnes are usually prints, and for this reason the colors will readily run.

Blankets are shrunk before being finished, and water will shrink them little if any. As in other goods, the poorer the quality, the greater the physical damage.

Curtains in the best quality are usually not dressed and will not be damaged greatly by water. In the cheaper qualities the starch will soften and the curtain will lose its shape. Strong smoke, or intense heat, will draw the mesh of curtains and materially damage them.

Comforters are filled with either shoddy, cotton, wool, or down, and are covered with various materials, such as silkoline, cretonne, silks, or satins. The down or wool filling can be renovated or restored to normal condition, after either smoke or water damage. If the comforter is of the better grade, it will usually be worthwhile to consider recovering, and if necessary renovation. The poorer qualities will not justify this expense. The cotton or shoddy filled comforters will pack when wet badly and are then of no value.

21. Jewelry: The damage to expensive jewelry by smoke and water is not likely to be heavy, due to the care used in storing. Jewelry of the higher grades can, if wet, be refinished and polished at a small cost. Cheaper grades suffer and like hardware reconditioning is costly. Jewelry cases are often covered with dust covers after hours. These dust covers should be made of a light rubberized material.

Shelves and cases are generally easily covered, although clocks hanging on walls and cases against walls without clearance present great difficulties.

22. Laces and Trimmings: The damage to a trimming lace is much greater than to ordinary wash lace. A wash lace is nearly always put on a garment that will be washed before it is used, while a trimming lace is put on a garment not intended to be washed. Very few laces look as well after washing as before, and washing naturally shortens the life of any material. Laces with any dressing or filling are seriously affected by water.

Gold and silver are commonly used as trimmings and after a fire should be handled at once if tarnish is to be forestalled. What are known as gold and silver cloths should be dried quickly, as they will become a total loss if they are allowed to tarnish. Any silver or gilt trimmings will tarnish from age, if kept in stock a long time. The tarnish from age is usually general while the tarnish from water will show in either spots or streaks. Mohair braids or trimmings will be damaged little, if any, by water, except in the bright colors which may run. Water will draw a great many of these trimmings out of shape, as they are frequently made of various combinations of wool, cotton, silk and mohair and the effect of water is different on each material. When wet, one material will shrink away from the other and draw the trimming out of shape.

23. Leather: Leather in boots, shoes, or gloves is liable to get hard after water soaking with the added risk of cotton stitching being rotted by heat or water. Good sole leather may give a good salvage unless it is actually burned. In-

(*Continued on page* 213)

THE ROUND TABLE

For Practical Discussion of Current Fire Department and Fire Management Problems

CONSTANT fear of the danger of flying glass, in case of an accident, has retarded the development of windshields for the protection of drivers of fire apparatus.

For many years these drivers making long runs into the open country during intense cold weather, have been subjected to treatment that one chief has aptly described as "cruelty to humans."

Any kind of a device that would prevent cold stinging blasts of air, or the sharp cut of hail and rain across the unprotected eyes and face of the men driving, would not only be a blessing to these men but would also add to the efficiency of the work done. Eyes that have become blurred because of the wind cannot be trusted when driving heavy apparatus.

Two types of windshields have been developed—the one using shatter-proof glass and the other isinglass. In either case there is no longer the hazard of flying glass fragments.

The letter on this page is the basis for the discussion. In the box on the next page is the problem that will be discussed in the next issue. Should you have some comments that you would like to add to the next question, you are invited to write to the "Round Table Editor," FIRE ENGINEERING, 24 W. 40th Street, New York, N. Y.

Discussion of the Question

The letters that have been received are very interesting. Many chiefs have experienced conditions that prove the value of protecting the driver against the elements. A few are against the use of the windshield. The replies follow:

S. H. Hansen, Chief, Duluth, Minn.: Do I believe in windshields for fire apparatus? I should say I do. We found out years ago in this cold climate of ours it was practically impossible for the driver to navigate during cold and heavy storms and we have every piece of apparatus equipped with windshields and double windshield wipers with the exception of our aerial truck.

Prior to the time we equipped our cars with windshields we had some very serious accidents by colliding with obstructions in the street, such as trolley poles placed in the center of the streets and also excavations.

I believe that the time is not very far off when enclosed cabs will be demanded for apparatus and I would not be surprised that sometime in the future the hose cars will be enclosed, especially up in our northern country where it would be a measure of comfort and safety to the men.

John W. O'Hearn, Chief, Watertown, Mass.: For nineteen years every piece of apparatus in this department has been equipped with windshields. I would not ask men to drive without them as they give great protection and encouragement to the driver.

I believe this is the general practice throughout the whole metropolitan area of Boston, with which I am familiar.

Summer or winter they should be used. Because of windshields on all automobiles, many accidents are avoided, and where windshields are not used, those in authority or responsible for this condition are negligent.

W. Glen Bixler, Chief, Alexandria, Va.: Before the days of shatter-proof glass I believe it would have been a dangerous proposition to have windshields on fire apparatus. However, since shatter-proof glass is now available, I can't see any good reason for not providing windshields. Pumpers are very seldom placed close enough to a burning building to cause the windshield to break from the heat. Therefore this cannot be used as a very good argument against windshields.

Certainly rescue squad wagons, ambulances, etc., in my opinion, should be equipped with shatter-proof windshields as an added protection for the driver, especially for suburban companies who have long runs.

John Gibson, Chief, Mount Vernon, N. Y.: Windshields on fire apparatus are in my opinion very essential and the time is not far off before it will be included in specifications for fire apparatus.

With all the devices that are on the market for keeping windshields clean and for giving a clear vision and shatter-proof glass to protect the driver, it seems that we have been very lax in not providing protection to the drivers of fire apparatus. All present day motor vehicles are equipped with cabs and windshields and there is no reason why the fire apparatus cannot be designed so the driver may operate the vehicle with his eyes open instead of half closed as he does when driving in wind and storm.

Our department has put in service three pieces of apparatus with windshields and we favor windshields on fire apparatus as part of the standard equipment. We also hope that cabs and windshields will be included in specifications for new apparatus in the future.

C. M. Johnson, Chief, Knoxville, Tenn.: We have some apparatus provided with windshields by our department mechanics, about two years ago.

In the past year we have purchased two pumpers and one combination fire and rescue squad car. Each were equipped with windshields as specified.

The responsibility that rests upon drivers of fire apparatus when answering fire calls makes it necessary for them to be given all the protection from cold winds and stormy weather that is possible.

A Chief being head of one branch of the safety department of his city, should advocate any improvements in his department, which he knows will aid in the pro-

HERE IS THE PROBLEM

Read this letter—

To the Editor:

One of our drivers, answering a night alarm during a recent high wind, was badly cut across the face by a telephone wire which had blown down across the street. The fact that the wire broke was the only thing that saved him from a more severe injury, and possibly death. A shatter-proof windshield would have prevented this accident.

Some of the county fire departments make long runs of ten or more miles, and on cold nights the men on front are in no condition to hook up when they arrive at the fire. Officers ride behind windshields and some in closed cars. They can see the road through a windshield. Why not the apparatus drivers?

Apparatus equipped with shatter-proof windshields would offer protection from cold and wires.

The California state law compels truck and bus owners to equip their trucks and buses with windshields. Why not the same requirements for fire apparatus?

W. C. F.

—then the discussion.

tection of life and property. If an apparatus driver is blinded by cold winds or snow or rain then the organization whose duties it is to protect life and property, is endangering both.

W. H. Joynes, Chief, Richmond, Va.: I think that drivers of fire apparatus should be protected from the weather as far as possible, more so than any other class of people. When they arrive at a fire they must have the full use of their hands for immediate action. It is impossible to do efficient work with numb fingers. I believe fire apparatus should be equipped with safe windshields.

As drivers of fire apparatus are in as much danger and often more than the ordinary driver of motor vehicles, windshields should be of the most approved type. I am strongly in favor of shatter-proof glass for windshields.

We must take into consideration the likelihood of windshields becoming covered with ice or snow and obstructing the driver's view. But this emergency can be provided for.

G. O. Evans, Chief, Vincennes, Ind.: The fast growing sentiment for windshields for fire apparatus has indeed become so important that it will soon have a bearing on all fire department equipment.

After talking to men who drive fire apparatus daily in towns of this size and larger, they almost all agree that a windshield would be a hindrance rather than a help.

In traffic a driver needs all the vision that is obtainable and even the best glass set in a windshield does not give the same vision.

The weather in Vincennes is not so cold; even in the severest weather it does not bother the driver to any great extent. Our runs are not of great length, rarely are the trucks on the way to a fire more than three minutes.

This department has had numerous calls for help from towns within twenty-five mile radius and in all kinds of weather, but the drivers who make these runs would rather not have a windshield.

On January 18, 1931, Vincennes sent a pumper to Bicknell, Ind., a distance of fifteen miles. This run was made at 7 o'clock in the evening. The weather was not cold but a fog was over the road all the way. Cars with windshields had a hard time of keeping on the concrete road and the driver of the pumper said that by not being bothered with front protection he was able to follow the road much better. I do not favor windshields on heavy fire apparatus.

John E. Espey, Chief, Elmira, N. Y.: I am strongly in favor of a windshield as a protection for men riding on the front seat of fire apparatus. It protects them from a driving rain, or a blinding snow storm, also from flying particles of dirt that might be floating through the air. It is also a protection against low hanging wires and branches of trees. It should prove beneficial, (rather than detrimental) to drivers. I think a shield could be arranged to drop down when not in use.

F. J. May, Chief, Mansfield, Ohio.: Concerning windshields on fire trucks I have always believed it would be a wonderful thing if it would be installed on all fire apparatus. Now that shatter-proof glass is available, it will protect the driver. There is much danger from rain, sleet and snow blowing into the eyes of the driver and blinding him; with a windshield this would be done away with. I am at the present time trying to have windshields put on my fire equipment and surely would not purchase new apparatus without it being properly equipped with windshields of shatter-proof glass.

Joseph A. Cribby, Chief, Somerville, Mass.: In 1929 we equipped all apparatus with what is generally known as Cambridge windshield constructed of leatherette material with two vision panels composed of celluloid. I consider this practical as I do not recommend any form of glass in windshields on fire apparatus.

This windshield has added to a great extent to the comfort of the driver and also to the safety in handling apparatus in severe weather.

I consider this type of windshield as an efficient equipment for all fire apparatus and recommend to all Chiefs the installation of this windshield.

Frank Charlesworth, Chief, Providence, R. I.: I would advise that the use of windshield protection is problematical. Providence is eighteen and one-half square miles in area; the runs are therefore short, and in adverse weather a shield may not be covered with ice during the short time necessary to make even the longest run.

This department is now trying a windshield of isinglass bound with leather, of a height which permits the operator to see over the top.

During a slight drizzle, recently water froze on the windshields of automobiles, rendering fast-driving risky, to say the least, and while this condition may occur only very infrequently, there is always the possibility during winter months. I believe, however, the windshields now being tested may prove a protection without the dangers which may be incident to the glass shield.

Edward F. Dahill, Chief, New Bedford, Mass.: I am of the opinion that fire apparatus for suburban districts of cities and all fire apparatus covering wide areas in towns should be equipped with windshields. Chauffeurs of fire apparatus assigned to city streets, especially where there is heavy traffic and many cross streets, lights, etc. can operate better without windshields, especially where the runs are much shorter than in the suburban sections.

Selden R. Allen, Chief, Brookline, Mass.: I believe that windshields are an absolute necessity for the protection and efficiency of the drivers. Every piece of apparatus in this department is equipped with "Cambridge Windshields."

E. A. McGranahan, Chief, Wheeling, W. Va.: This city has just purchased two units for rural districts and I have ordered windshields on each one. I believe they are a great protection to the men in making long runs to fires in the rural sections.

I think the windshields are a good invention for fire apparatus as it gives the men some protection from the wind, rain, snow and sleet in cold weather. If I order any more apparatus, I will have windshields on them.

Louis Bausch, Chief, Newark, Ohio: The idea of windshields for all fire apparatus is, in my estimation, a forward step. There is no valid reason for the modern builders of fire apparatus to rigidly adhere to the ideas in vogue a decade ago. The only reservation I would make would be that none other than shatter-proof glass be used.

In this month our department installed a new squad car, in which the specifications called for a shatter-proof windshield. This feature is very popular with our firemen. We have responded to calls from nearby villages and towns in severe winter temperature, on trucks without windshield protection and for want of a better term, I would call it "cruelty to humans."

Otto B. Johanner, Chief, Columbus, Neb.: I believe the best way to solve the question regarding windshields on fire apparatus is to take an early morning ride on apparatus such as we took recently to a town thirteen miles away. We were called by the town of Platte Center for help at 5:15 a.m. At 6:00 a.m. we had a stream of water on the fire. I believe that this is pretty good time for a volunteer department. We don't make a practice of answering country calls, but nevertheless a windshield would have been quite nice on this trip to break the snappy air, and would have prevented an eye injury to our driver. This injury was caused by gravel being kicked up by a car which we passed on the way back from the fire. I believe the time is very near when

(*Continued on page* 215)

HERE IS THE PROBLEM FOR THE NEXT ISSUE

How do you eliminate the professional loafer nuisance around the stations of your department, such persons not being members of the department?

Do you find that these loafers tend to make regular department members lazy and that they inject politics into the service?

What is the public's reaction toward these men?

With the Editor

Chief Kenlon Retires

The laying aside of the toga by Chief John Kenlon of New York means much more to the fire service than the mere retirement of a prominent head of a Fire Department. It is the stepping down from office of a man who has left an indelible impression on the profession of the fireman in this country.

If Chief Kenlon had performed no other notable work, his founding of the New York Fire College would have placed him in the forefront of the men who have helped to place fire fighting upon a scientific basis. This monumental work, from its small beginning, has spread out over the entire land, through its influence in turning the minds of leaders in the field to the proper education of firemen—both officers and privates—in the systematic and ordered operation of the sciences of fire fighting and fire prevention.

But other achievements have made the long career of the New York Fire Department's head a notable and striking one. Not the least of these is the department itself. Organized with the discipline of an army, with efficiency of the highest order both of officers and men as the goal, the Chief has seen the force become not only the largest, but one of the best disciplined fire fighting units on the earth. With the faculty of inspiring confidence and respect, which is the characteristic of a born leader, Chief Kenlon has combined the keenest knowledge of human nature and has shown himself to be an excellent judge of character, possessed of the rare gift of choosing the right man for the right place.

One of the influences which has resulted in the high place occupied by the New York Department has been the unflinching stand for right and justice which the Chief has invariably taken in all of its affairs. Interiorly, there has been neither favoritism nor wire pulling under his regime. The officers and men knew that only merit and efficiency counted in matters of advancement or discipline—that no amount of wire pulling or "influence" would get any man of the force anywhere. Exteriorly, the politicians of any stripe have long ago recognized that where Kenlon is concerned the "Keep Off" sign is strictly enforced. This uncompromising attitude of the Chief in all matters connected with his department has undoubtedly accomplished great things in making it what it is.

In saying farewell to Chief Kenlon as an active influence in matters connected with his department the regret of the officers and men will be echoed by every citizen who is proud of the splendid force which, under his leadership, has so well guarded the great city from the dangers of fire. However this regret will be tempered with the knowledge that whoever is chosen to be the successor to the office of Chief, of the splendid corps of men eligible to succeed, there is not one who is not capable of proving a worthy successor to the man who has laid down his office after so long and so well filling it.

Politics Versus Efficiency

What appears to be the interference of politics in the orderly working of a Fire Department is referred to in a letter just received at the offices of FIRE ENGINEERING. This letter reads in part as follows:

"After serving our city as Chief and Superintendent of the fire alarm system for about thirty years, I have been compelled to quit the service on account of dirty politics in our city election! It appears that they prefer politics to service. We have two apparatus and forty non-interfering boxes, which I think is fine for a town of 10,000 people. I am not a politician—only a business man of many years standing, and took pleasure in building up good fire protection for my town. It's just too bad to have a bunch of Aldermen try to undo what has taken years of hard work to build up!"

It has well been said: When politics creeps in efficiency flies out. The foregoing seems to be a concrete case of this kind. Good work, length of faithful service, improvement of the service under the incumbent's supervision, all count for nothing, when they interfere with the plans or wishes of those temporarily in the political saddle. The efficient Chief must make way for the political favorite, no matter how much the service may suffer in consequence.

The possible remedy for this unfortunate state of affairs—which, thanks be, is becoming more and more rare—is the spread of knowledge among the citizens on the subject of fire prevention and the need of proper fire protection. An indifferent public will allow the Fire Department to be made the foot ball of any faction that chooses to use it in this way. But, once aroused to the need of an efficient, well disciplined and well drilled force, the voters will soon come to resent bitterly and effectively any interference—no matter from what source—that has a tendency to reduce such efficiency in its Fire Department.

Of course, the most potent means to prevent the interference of politicians with the Fire Chief is to remove that office entirely from their power, by placing it under strict civil service rules, so that the head of the department can only be removed for cause and under charges, which must be substantiated. With this safeguard to the security of his position the Chief can have a free hand to carry out his plans and policies looking to the insurance of discipline and effectiveness in opera-

tion of his department. Without it he is a mere puppet, and cannot hope to retain the respect of the men under him, so necessary to the proper governance of his corps.

One Way to Keep Convicts from Panic

Fire in a prison always contains elements which are not present elsewhere. The need to keep the prisoners confined against their will and in all probability near enough to the fire to feel its heat, is bound to give rise to considerable excitement among them. The average convict in naturally nervous and high strung, owing to the very fact of his confinement under punishment, and it takes very little to destroy his mental balance. The stress of a fire in the prison buildings, then, is bound to create a condition bordering upon frenzy, and the control of a large body of convicts at such a time is a man-sized job.

Such an event occurred recently in a Southern prison. Two of the antiquated buildings—they were said to be ninety-two years old—were involved, and the prisoners were herded together in the prison yard. The heat from the burning structures was making things decidedly uncomfortable for the convicts, and they were becoming more and more unruly by the minute.

At this juncture, a former head of the state prisons, apparently well known to the men, strolled nonchalantly into the yard among the well-nigh frenzied men. He approached a large group of the convicts and entered into conversation with them. In a moment the hoarse shouting was hushed, and soon it gave way to uproarious laughter, as the former official told one joke after another to the prisoners crowding around him. The crisis was over and wit and humor had saved the day.

Robert L. Laing, Chief of Seattle

Robert L. Laing, a member of the Fire Department of Seattle, Wash., for seventeen years, has been appointed Chief to fill the vacancy caused by the resignation of Chief George M. Mantor.

Chief Robert L. Laing

Chief Laing has served as hoseman, ladderman and fire inspector. He was Fire Marshal for approximately nine years. His appointment as Chief was effective February 20. Chief Laing is forty years old.

Los Angeles Bans Football

Fire Departments along the Pacific Coast were greatly surprised at the announcement that the Los Angeles Fire Department will discontinue football as an extra departmental activity.

The sport was started in the Department five years ago in the hopes that it would be the means of raising funds for the Los Angeles Fire Department Band, Orchestra, Emergency Fund and the Needy Widows' and Orphans' Fund. After considerable work in developing a team the department's athletic association has concluded that it impossible to make this activity show a profit.

According to a resolution drafted by the Board of Directors of the association, "the public has proven beyond a doubt that they have no special interest in football other than as a college sport, as shown by our box office receipts."

CHIEF JOHN KENLON RETIRES FOLLOWING 44 YEARS SERVICE

Pensioned at Full Salary of $12,500—Head of Fire Department for 19½ Years—Asst. Chief Thomas F. Dougherty Named Acting Chief

By WM. JEROME DALY

JOHN KENLON, Chief of the New York Fire Department since August 1, 1911—the longest incumbent to hold that responsible post applied for retirement on the forty-fourth anniversary of his appointment. His application was granted by Fire Commissioner John J. Dorman effective March 4.

Commissioner Dorman paid public tribute to Chief Kenlon's exemplary career as a fire fighter and as Chief of Department for the past 19½ years. He fixed Chief Kenlon's pension at full salary, $12,500 a year.

Chief John Kenlon

Full salary as pension has been granted in the past to several other fire fighters whose health was impaired through the rigors of fire duty or because of exceptionally meritorious service. Ever since the fire in the subbasement of the Hotel Marguery at 47th Street and Park Avenue, on January 3, 1930, Chief Kenlon's health began to decline. It was attributed to the severe ordeal he endured in the smoke, heat and gases which permeated the cellar where several others were also affected.

Since the Hotel Marguery fire the venerable fire fighter has been on "light duty" and responded occasionally to large fires in the day time but not assuming active command. He busied himself with directing the affairs of the uniformed force from his desk and made frequent trips of inspection.

When he reached the decision to apply for retirement, giving his health as the reason, the Chief sat down with Commissioner Dorman and Deputy Fire Commissioner Joseph M. Hannon and they conferred for over an hour. Following the conference, Commissioner Dorman made the announcement in the official orders of the day.

Commissioner Dorman then wrote the following letter to Chief Kenlon:

My Dear Chief Kenlon:

I am in receipt of your application for retirement from all service in the New York Fire Department, to take effect tomorrow morning at 9 a. m.

It is with reluctance and sincere regret I am granting your application, for the reason that the last four and one-half years spent here coming in close daily contact with you has made my duties more than pleasant and happy, and it makes me feel sad to think that you are leaving us.

(*Continued on page 216*)

THE COVER ILLUSTRATION

Tar and any of its distillates, when ignited, burn freely and generate large volumes of dense, black smoke. The fire illustrated is one that occurred in New Jersey, believed to have been started by a carelessly tossed cigarette. It was fought for two hours before it was brought under control. The damage was estimated at $500,000.

Questions and Answers

NOTE—Readers are invited to send in questions, which will be answered in the order received. Names are omitted from questions unless otherwise specified

Hose for Hospital Fire Company

To the Editor:

Will appreciate very much if you will answer the following questions or make recommendations of what you think best in the following circumstances. There is a large federal hospital here, maintaining a fire department station. This station has 1500 ft. of 2½" double jacket rubber lined fire hose on its own fire apparatuts, which is 8 years old and would not stand a pressure test over one-hundred-fifty pounds a year ago. The station has its own water system with a pressure at the hydrant of sixty-pounds and an emergency valve to a municipal water system of 120 lbs.

Taking in consideration that a municipal fire department is within 10 minutes call and that four buildings out of fifty are fireproof, what do you recommend; purchase new hose or continue to use the old?

M. F.

Answer: In view of the large percentage of frame buildings connected with your establishment, no chance should be taken by using hose which might burst under ordinary fire fighting pressures. Even though you have a municipal fire department which could respond within 10 minutes, great headway could be made by a fire in frame buildings before the municipal department arrived, and even if the department arrived before the entire establishment was lost, it is very likely that your hose would be brought into use by the municipal department and in the event of hose bursting valuable time would be lost.

It is poor policy to economize in fire hose. Far better would it be to replace the old hose with new hose and relegate the old stuff to other service where dependability is not a vital factor.

Protection of Flues

To the Editor:

Will you please answer the following questions?

1. What is the regulation air space for steam pipes running through wooden partitions?
2. What safety measures should be used?
3. What is the regulations on stove pipes in frame buildings?
4. What fire equipment should be installed in dry cleaning plants; also moving picture booths?
5. Rules for storing baled prairie hay in buildings.

G. J. M.

Answer: The answers to the questions you ask are as follows:

Answer 1. The usual rules regarding passing of steam pipes through wood partitions are as follows: no steam or hot water pipes shall be within 1 inch of any woodwork. Every steam or hot water pipe passing through combustible floors, or ceilings or wood lath or partitions, shall be protected by a metal tube one inch larger in diameter than the pipe, and be provided with close fitting metal cap on each side of the floor or partition. All wooden boxes, or casings enclosing steam or hot water heating pipes or wooden covers to recesses in walls in which steam or hot water pipes are placed, shall be lined with metal, and the pipes shall be kept at least one inch away from the walls of the box. Steam and hot water pipe coverings shall be of incombustible material.

Answer 2. Covered in the answer to question 1.

Answer 3. Regulations usually enforced regarding stove pipe in frame buildings are covered by the following: no smoke pipe shall pass through any floor, nor through a non-fireproof roof. Smoke pipes for large cooking ranges, hot air furnaces, low pressure steam or hot water boilers, shall be not less than 18 inches below any wood lath and plaster or other combustible ceiling, unless at least the upper half of such smoke pipe is properly protected by one inch or more of absestos covering or its equivalent, or by a metal casing spaced two inches from the upper half of the pipe. If so protected smoke pipes shall be not less than 9 inches from any wood lath and plaster, construction, woodwork, or other combustible materials. Smoke pipes from ordinary stoves shall not be less than 9 inches from any exposed woodwork.

Where smoke pipe passes through a wood lath and plaster or other combustible partitional walls, a section of the partitional wall shall be removed and a smoke pipe so placed that no part of it shall be nearer than 6 inches to any remaining combustible part of the partition. The section of the partitional wall so removed shall be replaced by approved fireproof material only, and an air space of at least 2 inches shall be preserved on all sides of the smoke pipe.

Answer 4. Fire equipment to be installed in a dry cleaning plant varies with the size and type of the plant. The following recommendations for fire protection of dry cleaning establishments quoted from "Industrial Fire Hazards" will probably give you the information you wish.

"Effective fire protection of a dry cleaning plant requires the provision of extinguishing devices of a type suitable for use on volatile flammable liquid and also provision for the extinguishment of burning flammable vapors.

"FOAM. Wash rooms should be equipped with an automatic foam extinguisher system. This system should be installed in accordance with N.F.P.A. regulations governing Foam Extinguisher Systems, Class B.

"Foam type extinguishing devices of the portable type, 2½ gallons or larger size on wheels, or both, should be provided, the kind and number depending on the size of the plant. At least one foam extinguisher of the 2½-gallon size should be provided at each entrance to a wash room or drying room.

"AUTOMATIC SPRINKLERS. The installation of an ordinary automatic sprinkler system, fed by water, is recommended in the drying rooms as well as in all other parts of the dry cleaning plant except possibly the wash room if of fire-resistance construction.

"STEAM. Each dry cleaning wash room and drying room should be equipped with a system of steam jets for extinguishing fires. An automatic release of a heat actuated type is desirable in such a system. The steam supply for the jets should be direct from the boilers or main supply line for the plant. It should be of sufficient capacity to completely fill the room or spaces in such room, or rooms, in less than one minute. The discharge orifices for the steam should be not less than ¾" in diameter, with pipe sizes and piping installed in accordance with regulations for automatic sprinkler equipment. The steam jet, or nozzle, should be installed in an upright position. A shut-off or controlling valve of the globe or outside screw and yoke type should be installed on the steam line or lines outside of the dry cleaning or drying room, in a place accessible for operation in case of fire. An adequate steam supply for extinguishing purposes should be available at all times while the plant is in operation, and the maintenance of all valves and piping comprising the system in proper operative condition should be frequently verified by inspection and test.

"A steam jet of not less than ¾" diameter with automatic or remote control should be installed to discharge inside of the shell of each washing machine or drying tumbler.

"CARBON DIOXIDE. An efficient alternative or additional extinguishing system to steam jets sometimes used is that of carbon dioxide gas. This gas is distributed by a system of piping and nozzles about the room. The gas supply is usually obtained from a battery of high pressure commercial cylinders located outside, with controlling valves at the cylinders.

"CLOSING VENTS. In order that steam jets or gas shall be effective in extinguishing flammable vapor fires, it

is necessary that all openings and vents to the outside air be shut off. Provisions should be made for the remote control of all ventilating fan motors. Windows, ventilating openings and explosion vents should be equipped with manually operated shutters, which should be closed after explosion has been vented.

"A 'Lowe Release' or similar device is recommended for the automatic control of auto closing fire doors, automatic drains, etc.

BLANKETS. An asbestos blanket not less than 7 ft. by 7 ft. and a boat hook with handle at least 6 ft. long should be kept on a convenient rack at each entrance to the dry cleaning room."

For extinguishing fire in a motion picture machine where electrical equipment is present, the carbon tetrachloride or carbon dioxide extinguisher or the combination dry powder and gas extinguisher is satisfactory. For handling fires in films which might possibly be exposed in the booth, water or soda and acid extinguisher would best serve the purpose.

Answer 5. The chief precaution to take in the storage of baled hay in a building is not to exceed the allowable floor load. Hay should not be piled entirely to the roof, but sufficient space should be permitted to get streams over the entire area in the event of fire. Aisles should be provided to enable fire fighting forces to get lines in operation, so as to confine possible fire to a small area of floor. The applications of these suggestions will, of course, depend upon the size of the building, fire fighting facilities, and upon other material which may be stored within the same structure.

NEW YORK CITY TO HOLD EXAMINATION FOR CHIEF

Twenty-Four Candidates to Compete—Present Officers Must Have Large Amount of Scientific Knowledge for Department Has Expanded

By WM. JEROME DALY

FIRE COMMISSIONER JOHN J. DORMAN of New York has requested the Municipal Civil Service Commission to hold as soon as possible an examination for promotion to the rank of Chief of Department to fill the vacancy caused by the retirement of John Kenlon.

Twenty-four Deputy Chiefs of the thirty-three deputies in the Department have applied to take the test. A requirement of the Civil Service Commission that all candidates must be at least six months in the rank will exclude Deputy Chief John J. Flood who was promoted December 24, 1930, unless the examination is held on or after June 24 next and this is a very remote possibility.

The Deputy Chiefs who filed to compete in the examination are: Thomas F. Dougherty now Acting Chief of Department, John J. McElligott, Patrick Walsh, James W. Heffernan, Raymond L. George, John J. T. Waldron, Henry B. Helm, Joseph O'Hanlon, Frank Murphy, Elmer W. Mustard, Robert E. McGannon, Frederick Mahoney, Daniel Carlock, David J. Kidney, George T. McAleer, Daniel J. Cavanagh, James A. Quinn, Patrick Maher, Ferdinand Butenschoen, Thomas R. Langford, John J. O'Connell, George O'Shea, Garrett Langdon and John Davin.

The Deputy Chiefs who failed to file for the examination are: John F. King, George L. Ross, Denis J. Curtin, Gerhardt Webber, Richard J. Marshall, Arthur J. Wright, Martin Kelly and George L. McKenna.

The announcement of the examination recalls the previous test for this position twenty years ago at which time the then Mayor William J. Gaynor thought enough of the importance of this position of public trust to appear before the ten candidates accompanied by the late James Creelman, President of the Municipal Civil Service Commission and make the following address:

"You are to be examined, gentlemen, for one of the most important offices in the city. There are ten of you. It is an office requiring courage, skill and mental equipment. The equipment required is much higher than it was twenty-five years, fifteen years, ten or even five years ago. I am sorry that one of your members was unable to participate, having been debarred by physical infirmity which was the result of doing his duty in the Fire Department.

"Now the old way to appoint a man to this place and to other places was for each man to look out for himself and run to the Mayor and run to the Commissioner and run to the political leaders and to the clergymen and accumulate all the influence he could and mass that influence on the appointing power and so get it in that way.

"The substitute for that way is the way you are now pursuing. You are brought here in an honorable examination. It may be that the best man will not make the best showing in his papers. I can see that that sometimes may happen. Nevertheless this method will, we all concede, evolve a good man—the man fit for the place."

That examination produced John Kenlon and three others on the eligible list—Kenlon with a final rating of 85.08; Joseph B. Martin with 84.79; William Guerin with 84.21 and Thomas R. Langford with 82.13. Of the ten deputy chiefs who competed in that test twenty years ago only two remain in the service today. They are Thomas R. Langford and Patrick Maher, both of whom have filed for the coming examination to succeed Kenlon. Of the others, John Binns, John Burns, William T. Beggin, Thomas Lally are dead; Joseph B. Martin, John Kenlon, Fred. Gooderson and William Guerin have retired.

The man to whom Mayor Gaynor referred as being debarred from the examination by reason of physical infirmity sustained in the line of duty was Thomas J. Ahearn, one of the department's outstanding heroes in his time who was so badly injured and burned that it impaired his hearing, although he had scores of times been the Acting Chief of Department with its accompanying responsibilities every time that Fire Chief Edward F. Croker took a week-end holiday at his country place at Good Ground, L. I., and there were many such week-ends.

Niagaras of fresh and salt water have been poured on many thousands of fires in this city since that examination was held and the complexion of the Fire Department has changed considerably since John Kenlon became Fire Chief on August 1, 1911.

The coming examination for promotion to Fire Chief will have to be a great deal different in many of its phases because in twenty years a more scientific and modern fire fighting army of Gotham has been trained in that art. In all probability the examination will be held within two months. It will require all of that time to make charts, maps, and diagrams and to propound questions which will test the fitness of the competing candidates.

Twenty years ago there were 13,868 fires in New York. Last year there were 31,391; the losses in 1911 were $12,470,806 and last year they were reported as $18,116,305. The fire fighting force has grown from 4,420 men to 6,757. There were only eleven pieces of motor fire apparatus in 1911. Today there are 723. In 1911 the department had 1,443 horses and not a single one of them remains now. The departmental budget in 1911 was $8,187,459. The budget for 1931 is $24,361,393. New York boasted of 260 fire companies twenty years ago whereas today there are 354 fire companies in service.

These figures are but a small cross-section of the growth and the changes that have taken place in the fire fighting service of the city which the ambitious candidates for the highest rank in the fire department will have to be guided by. Fire Headquarters has moved since that last examination from its own fire station in East 67th Street to become part of a huge office building downtown. The horses and the harnesses have gone, the moustaches have disappeared almost entirely from the faces of fire fighters; the two-platoon system has come; the book of rules has been revised twice within twenty years; traffic congestion has come to be a serious and important part of the Fire Chief's problems; the height of office buildings and hotels has gone Heavenward and thereby increased the perplexities of the chief commander of the fire fighters.

The entire city has been changed as to its fire alarm box locations; four new isolated fire alarm central operating plants have been opened for service; the motion picture film, the extensive use of gasoline and fuel oil, the fire hazards in airplane hangars, the introduction of fire foam and carbon dioxide as substitutes for water in quenching flames—in fact a hundred and one different changes have taken place in the daily life of the fighter, having in mind all of the time that the population has climbed to 7,000,000, the number of buildings to be protected has reached 637,000 and the property values today are at the $18,000,000,000 level.

The entire department is keyed up with interest in the coming battle of the flames on paper. Civil service has its advocates and its detractors too. In the examination for Fire Chief twenty years ago one of the candidates in criticising the questions said "It was a test of a man's memory—not of his thinking powers."

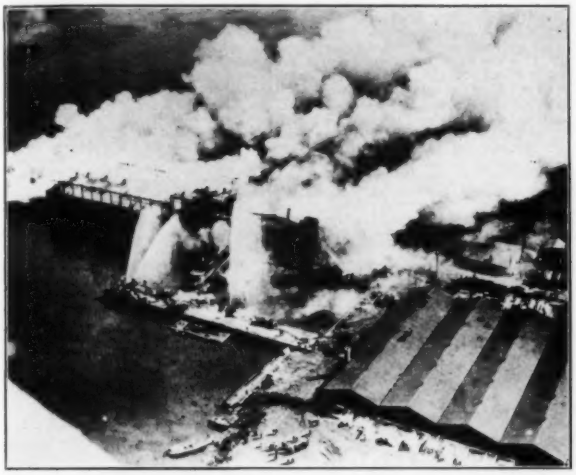
Right there is should be noted that some of the ambitious candidates for the mantle of Chief of Department are sixty-six years of age. Others are as young as forty-seven years. Some of the veterans in the competition were fighting fires before their youthful competitors were born. The years of service of the candidates range from twenty-four to forty-five years.

Everywhere in the department the question is being asked: "Who is the next Chief of Department?" and the best answer right now is, "The man who comes out first on the eligible list."

STATE PIER DESTROYED IN PROVIDENCE, R. I., FIRE

Three Calls Sent to Extinguish Flames That Continued for 31 Hours — Firemen Have Difficulty in Reaching Burning Beams

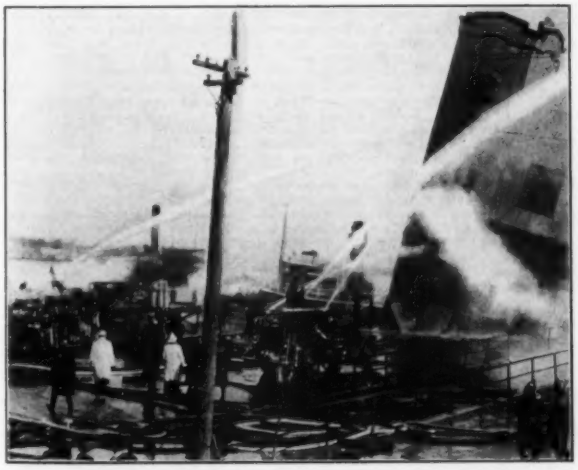
FOR thirty-one hours, the Fire Department of Providence, R. I., under command of Chief Frank Charlesworth, was faced with the difficult task of extinguishing a fire in State Pier No. 1, because of the obstacles in reaching the seat of the fire. The pier was seven hundred feet



Aerial View of Fire in State Pier No. 1

long by 135 feet, two stories high and constructed of steel and cement. It was supported by wooden piers. All of the wooden floor was covered with eight inches of cement. The building had concrete walls and was provided with sprinkler protection.

The pier was dedicated May, 1914. Construction followed the voting of a $1,500,000 bond issue in 1911. It was one



After One End of State Pier Had Collapsed

of two piers under the jurisdiction of the State Harbor Commission.

According to fire department estimates, the fire started about 2 a.m., February 25, from an unknown cause. Some time between 3:30 and 4 a.m., the fire was discovered by a watchman and an alarm sent. However, officials say that the handle was not operated properly for no signal was received at Fire Alarm Headquarters. At 3:59 a.m., a police sergeant discovered the fire and sent in an alarm.

When the first companies arrived all the piling under the pier was blazing. A second alarm was sent at 4:10, and two hours later a special call was sent for three additional engine companies. The tugs Maurania and the Gaspee aiding in fighting the fire. There were planks two by ten running from pile to pile and all streams that were in use struck the planks and did not succeed in reaching the flames.

When the piles were weakened by the flames, the pier tipped. This broke the floor and allowed some of the fire to get up into the building. Up to this time (8:30 a.m.) the fire was confined to the piles.

Both the first and second alarms each brought three pumpers and a ladder truck. Ninety-five firemen responded.

An eight-inch main supplied water at sixty pounds pressure. Twenty-two hose streams were used provided with 1, 1⅛ and 1½-inch nozzles. Four streams were supplied by hydrants, and eighteen were supplied by water pumped from the river. Cellar pipes were also used.

Chief Charlesworth and four firemen were injured, but none seriously.

The pier contained a varied assortment of merchandise which was not damaged by the flames. This fire is considered the worst waterfront fire in the history of Providence.

Arson Suspected in Pittsburgh Fire

Six engine companies and two truck companies, called on two alarms, worked thirteen hours at a fire which started in a building in Pittsburgh, Pa., occupied as a fruit commission warehouse. The fire started early Sunday morning, January 4, under suspicious circumstances. The four-story

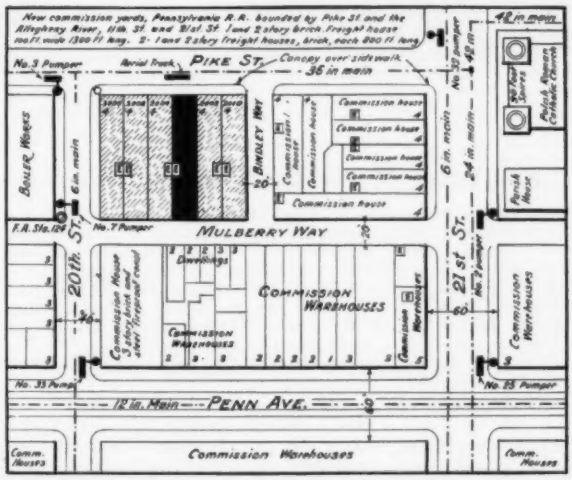


Diagram of the Warehouse Fire Zone

brick building was in the heart of the wholesale commission and warehouse district of the city.

Two barrels of liquid, smelling strongly of kerosene oil, found in the ruins, one on the second and one on the third floors, were turned over to Roy E. Hiller, Chief of the Fire Prevention Bureau, for an investigation of possible incendiary origin of the blaze.

The first alarm brought Engine Companies No. 2, 7 and 25 and Truck Company No. 25 to the scene, in command of Battalion Chief William H. Davis, of the Third Battalion, while the second alarm was answered by Engine Companies No. 33, 3 and 32 and Truck Company No. 3, Deputy Chief Frank G. Jones, and Chief of Department Richard Lee Smith, who upon his arrival took personal charge of the fire fighting.

The fire was on the first floor, rear, near the elevator shaft. When the first alarm companies arrived, fire was raging in the elevator shaft, and had extended to the second and fourth floors, the fire skipping the third floor. It spread throughout the fourth floor and completely burned off the roof.

The fourth floor of the burned structure was heavily stocked with knocked-down packing crates, used in packing fruits of all kinds, while the first, second and third floors, were stocked with crates containing all kinds of fruits, all of which were practically destroyed by the heat, smoke, and water.

One fireman fell down the elevator shaft, from the first

floor to the basement, and was sent to the Mercy Hospital: two other firemen were overcome by smoke.

Plenty of hydrants, located close to the burning building, registering 90 to 110 pounds pressure and fed from large water mains, gave the Fire Department all the water desired.

Firemen, under the personal direction of Chief Richard L. Smith and his Chief Officers, successfully fought the fire from all four sides of the burning building, dragging their lines of hose up aerial and extension ladders in the front and rear of the building to the upper floors and to the roof of adjoining buildings. Lines were also taken up the stairway.

The block in which the fire took place, was a four story brick and wooden joisted building, fronting 115 feet on Pike Street, from Twentieth Street to Bindley Way, and extending back to Mulberry Way, a distance of 100 feet, and divided into six separate sections or buildings by solid brick party walls, with each section or building equipped with an elevator from the basement to the top floor and a modern iron fire escape in the rear.

Two barrels, partly filled with kerosene oil, were upset and their burning contents scattered over the floors by the force of the powerful fire streams, as the firemen worked their way into the seat of the fire. The proprietors were questioned by Chief Inspector Roy E. Hiller, of the Fire Prevention Bureau, city detectives assigned to arson cases, and William F. Gmerck, Special Inspector for the National Board of Fire Underwriters on arson cases, but they could not account for the two barrels of oil discovered by the firemen in the building.

After a thorough investigation, with no evidence being produced by the Fire Department officials and others to indicate that the occupants were in any way responsible for the firing of their place of business, the proprietors were released.

WILLIAM E. PATTERSON.

Sault Ste. Marie Has Stubborn Fire

For six hours firemen in Sault Ste. Marie, Canada, worked in the intense cold to extinguish a fire that is believed to have started among oily materials and leather in a harness shop, due to spontaneous combustion. Every available fireman and all apparatus were called to fight this blaze.

Flames were first noted in the southeast corner of the building above the harness room. Dense clouds of smoke hampered the men in their work.

Chief W. Phillips believes that the fire caused $60,000 damage to building and contents.

Fitchburg, Mass., Wants Another Pumper—Chief Hyatt, of Fitchburg, Mass., requested that the city purchase another 750-gallon pumper.

Jacksonville Firemen Honor Chief H. R. MacMillan

An elaborate oyster roast that was attended by city officials of Jacksonville, Fla., and other notables, was arranged to honor Chief H. R. MacMillan on his sixtieth birthday. The gathering was held February 21 in Station No. 4. A gold charm with the words "Jacksonville Fire Department," and on its reverse side "From Members of the Fire Department, 1931," was presented to the Chief. The photograph shows E. M. Valz, Commissioner of Public Safety, presenting the token to Chief MacMillan.

WHAT'S BURNING

THE following list includes fires of $25,000 loss and over in the United States and Canada, for the periods designated in the headings. These figures, compiled from telegraphic reports, are based on estimates made at the time, and are subject to later investigation and consequent revision. Taken as a whole, however, they give an approximately correct view of the losses incurred. The figures represent loss in thousands of dollars.

Week Ending March 6

	Loss in Thousands of Dollars
CHICAGO, ILL.—Plant of International Chemical Co.	40
ENGLEWOOD, N. J.—Constantine's Bazaar Store damaged	25
FARIBAULT, MINN.—Rice County Court House damaged	125
WORTHINGTON, MASS.—Lafayette Inn, adj. property	40
ARKANSAS CITY, KAN.—Several business establishments	160
LOS ANGELES, CALIF.—J. J. Newberry dept store	200
VICTORIA, B. C.—Plant of Cameron Lumber Co., Ltd.	200
NORTHFIELD, VT.—Business and apt. property	25
SALEM, N. J.—Whse. occupied by Salem Glass Works	25
E. ST. LOUIS, ILL.—Freight depot of Illinois Central R. R.	375
MINNEAPOLIS, MINN.—Bldg. occupied by Dryer's Recreation Parlors	150
OWEGO, N. Y.—Hotel Ahwaga destroyed	40
REGINA, SASK.—Whse. of National Cartage and Storage Co.	35
ROCHESTER, PA.—Presbyterian Church damaged	30
MILTON, FLA.—Business and residential property	65
NEW BEDFORD, MASS.—Business property damaged	25
LORAIN, OHIO—Store of Hughes Provision Co.	35
ALBUQUERQUE, N. M.—Plant of Chicago Mill & Lumber Co.	25
COLFAX, IOWA—Plant of Fry Bottling Co. destroyed	30
GREENVILLE, S. C.—J. C. Penney Co. store damaged	30
UTICA, N. Y.—Kanatenah Apartments, Genesee St. damaged	225
YOUNGSTOWN, OHIO—Lincoln Theatre, Himrod Ave., destroyed	25
NORFOLK, VA.—Business property 401-417 E. Main St.	45
N. BERGEN, N. J.—Plant of Modern Rug & Dye Works	25
DANVILLE, ILL.—Baker Motor Co. garage damaged	65
GREENVILLE, S. C.—Whse. of E. W. Montgomery Cotton Co.	80
FT. SMITH, ARK.—Garage of O. K. Transfer & Storage Co.	50
WINSLOW, ARK.—Post office and adj. property destroyed	65
CORSICANA, TEX.—Three business bldgs. damaged	30
VAN BUREN, OHIO—F. E. Brinkman chicken hatchery	30
MILTON, FLA.—Ice plant of Gulf Power Co., adj. property	80
ESSEX, CONN.—Boat yard of H. R. Perkins damaged	35
OAK GROVE, LA.—Lee Hotel destroyed	70
ROSEVILLE, ILL.—Doherty paint store, adj. property	40
WELLINGTON, KAN.—Flour mill destroyed	225

Week Ending March 13

WINDER, GA.—Mathews' General Hospital destroyed	25
GLOUCESTER, MASS.—Community House destroyed	25
KEENE, N. H.—Bldg. occupied by Henkel & Son destroyed	25
ANN ARBOR, MICH.—F. W. Woolworth store, S. Main St.	125
NEW YORK MILLS, MINN.—Farmers' store, adj. property	45
HAVERHILL, MASS.—Garage of E. Zorhas Fruit Co.	65
HARRISON, OHIO—Several business establishments	50
LYNDONVILLE, N. Y.—Plant of Barry Lime & Sulphur Co.	45
EAGLE, WIS.—Bank of Eagle, adj. property	40
RUMFORD, ME.—Rumford Hotel and Bottling Co. block	35
SHERMAN, TEX.—Bldg. of Texas Nursery Co. destroyed	25
WILLIAMSON, W. VA.—Madlom Bros. dept. store	30
SALINEVILLE, OHIO—Business and apt. property and freight cars	80
BROCKET, N. DAK.—J. C. Miller hardware store destroyed	25
SALMON, IDAHO—Six business buildings destroyed	180
LAKE GENEVA, WIS.—Summer home of J. E. Swanson of Chicago	30
HARRAH, OKLA.—Public school bldg. damaged	40
RUMSON, N. J.—Residence of W. E. Tobias, damaged	25
GALATIA, KAN.—Two stores destroyed	25
RED BLUFF, CALIF.—Cone Tavern and Moore Cafe destroyed	25
PENN YAN, N. Y.—Farm bldgs. of F. Wagner, Potter Rd.	25
MONTREAL, QUE.—Business property at 910-20 St. George St.	40
TOLEDO, OHIO—Plant of Swan Creek Lumber Co.	85
MT. STERLING, KY.—Property occupied by Barnard Dept. Store	40
OKLAHOMA CITY, OKLA.—Business bldg., E. Reno & Compress Ave.	65
HARPERS FERRY, W. VA.—B. & O. Railroad bridge damaged	200
INDIANOLA, ILL.—Masonic Lodge and adj. property	35
TERRELL, TEX.—Home of Grover Fix destroyed	80
MEYRONNE, SASK.—A. F. Haddad store, adj. bldg.	30
COLUMBIA, PA.—Kasey's dept. store, adj. property	65
HAZLETON, PA.—Hazle Hall bldg. destroyed	125
PEORIA, ILL.—Brady Bottling Works, adjoining property	75
DANVILLE, ILL.—Business property at 108-110 Vermilion St.	75
ELKINS, W. VA.—Gawthrop and Wilt buildings damaged	150
NEW BRUNSWICK, N. J.—H. Singer property and truck of K. S. Shelby Trucking Co.	50
ELKINS, W. VA.—Business property destroyed	175
LONG VALLEY, N. J.—Farm property of Gilbert Welsh destroyed	50
ROCKAWAY, N. Y.—Ocean View Hotel damaged	125
NORTHSIDE, PA.—Greater Pittsburgh excursion steamer destroyed	200
LANSINGBURGH, N. Y.—Thomas A. Gainor Co. warehouse destroyed	40
LITTLESTOWN, PA.—Garage of Basehor & Mohring destroyed	40
WAUKEGAN, ILL.—Standard Welding Co. factory damaged	35
MAX, N. DAK.—A. A. Zethren store and adj. building damaged	25
NEW HAVEN, CONN.—Plant of C. Haartz Company damaged	35
HOT SPRINGS, ARK.—Dr. C. E. Ellis property destroyed	30
NEW LEXINGTON, OHIO—Garage and property of J. A. McCure & Son damaged	25
MIRANDO CITY, TEX.—Fifteen business buildings destroyed	45
SPRING HILL, W. VA.—Store of Lee Shannon and adj. property destroyed	25
KINGSTON, ONT.—Courthouse destroyed	80

Ex-Chief of Lyndhurst, N. J., Dead—Riley Sherwood, organizer and for many years Fire Chief of the Fire Department in Lyndhurst, N. J., died at his home at the age of eighty-three.

Contract for Rural Fire Service

Many communities have a large rural area outside the village or corporate limits that is without fire protection facilities. An interesting contract has been drafted by officials of Pitsburg, Ohio, and it provides for payment to the department for services rendered, within thirty days after the fire has occurred. The contract in full follows.

Whereas, the village council of Pitsburgh, Ohio, passed an ordinance granting and regulating fire service outside the corporate limits and within two miles of the corporation line, and

Whereas, I, the undersigned, am the owner of property within the fire zone of two mile limit and desire fire protection,

Therefore I agree to pay said Village the sum of Fifty ($50.00) dollars for each fire that the fire department of said village may be called to fight, also agree to pay each fireman for all time in service at the rate of one dollar per hour and for all chemicals used, the regular pay of firemen while fighting fires and the cost of all chemicals.

Payment to said village shall be made within 30 days from time of fire.

I further designate myself and immediate members of my family, my tenant and the immediate members of his family and..... and..... either of whom are authorized to call the fire department in the event of any buildings catching fire and a call from either of them shall be as binding on me as if I had made the call myself.

The fire department will respond to all calls made as above provided, providing the said department is not engaged at the time in fighting fires in said village or has a call to a fire in said village.

Provided further should the fire department respond to a call as above provided and receive notice from the village officials that it is necessary for said firemen to return to said village to fight a fire within the village, the fire department shall return to said village forthwith and should the fire be not extinguished on the premises of the above party before leaving or so as not to give the property owner the proper assistance the circumstances may require then and in that event the village shall receive no compensation for making the run or for service rendered.

It is further agreed that the fire department shall render all the assistance they can. The fire chief and his assistants shall be the sole judges of and direct the operation of the fire department in fighting fires.

The property owner or his tenant shall not interfere in any manner with the firemen.

It is further agreed that this contract shall continue indefinitely and until terminated by either party giving notice in writing to the other party that the contract is terminated.

Witness our hands in duplicate this....day of....., 19....

Village of Pitsburg,

.....
Property Owner

By.....

Apparatus Damaged in Crash

A triple automobile accident in Ridgefield Park, N. J., caused apparatus of Hose Company No. 3 to be put out of service, and damage to the front of three stores.

The fire company was on its way to extinguish an automobile fire. Some one on the street saw an automobile coming out of an intersecting street and attempted to prevent the accident. The two vehicles struck and the fire apparatus mounted on the sidewalk crashing into a double store. The other car swerved to the opposite side of the street and plunged through the front of a store. Before the fire apparatus mounted the curb it had demolished the forward end of a third automobile.

N. E. Chiefs Plan Havana Trip

George F. Cobb, Traffic Manager for the New England Association of Fire Chiefs, reports that much interest is being shown in the trip to Havana, Cuba, to attend the convention of the International Association of Fire Chiefs in October. A questionnaire has been sent out and replies received indicated that three-fourths of the members wished to make the trip by steamer all the way and one-fourth preferred steamer and train. Under these circumstances plans are being made for an all steamer trip.

The association has at the present time an option on one of the finest steamships sailing out of Boston for exclusive use of the chiefs and their guests.

If 150 or more Chiefs sign up for the trip it will be possible to secure the steamer and the entire round trip cost including hotel and meals in Havana will not exceed $200 per person.

Those interested in making this trip with the New England chiefs should communicate with Mr. Cobb at 774 Albany Street, Boston, Mass.

HARRY BELKNAP.

Taunton, Mass., Prohibits Wooden Shingles—An ordinance has been drawn in Taunton, Mass., that prohibits wooden shingles throughout the city limits.

George L. Johnson Chief 25 Years

Chief George L. Johnson, of the Waltham, Mass., fire department, celebrated the twenty-fifth anniversary of his appointment as head of the force, on March 5.

When he became Chief on March 5, 1906, the Waltham Fire Department consisted of 14 permanent men and 69 call men. Since then the department has been completely motorized and now has a force of 48 permanent firemen and 30 call men.

Chief George L. Johnson, Waltham, Mass.

Commenting on the occasion, the Waltham *News-Tribune* had the following to say in an editorial published on March 5:

"Chief George L. Johnson, of the Waltham Fire Department, rounds out 25 years of service today as head of the city's fire fighting force. His record is one of which both he and the city have reason to be proud. The loss that Waltham suffers annually by fire is remarkably small for a city of its type where much of the business section is of old construction and where manufacturing plants are scattered through residential districts. It is all very well to say that the city is 'lucky,' but behind the luck is the fact that Chief Johnson has raised the department to a state of efficiency which is proved by a comparison of the fire losses in Waltham and in other cities of approximately the same size.

"When the chief assumed office there were but 83 men in the department, nearly all call men. There were a dozen permanent drivers. In fact for two years after his appointment as chief engineer, the chief himself was a call man. There was no piece of motor apparatus, but 23 horses carried the machinery and men to the scene of action. In the first year that he was chief there were 141 fires, 54 bell alarms, 73 still alarms, and fourteen fires for which no alarm was sounded. Forty-four of the fires were in dwellings and six in stables.

"Waltham has had some large fires in the past quarter of a century, but none which threatened to approach the proportions of a conflagration. Virtually all which have caused serious damage have started in the night hours and have gained considerable headway before discovery.

"Like all good firemen the chief has a 'bug.' In fact he has two of them, one connected with his vocation and the other his avocation. He doesn't fight a fire with water, with consequent damage to building and contents, when chemicals will do the work. And he raises carrier pigeons. May it be many years before he feels that he must devote his whole time to what is now a 'recreation.'"

Chief Johnson is a member of the Fire Chiefs' Club of Massachusetts, the New England Association of Fire Chiefs, and the International Association of Fire Chiefs. He is one of the most progressive and popular fire officials in America and always takes a leading part in convention proceedings.

Officer Killed in Odd Accident

Captain William H. Bogen, for twenty-two years a member of the Oakland, Cal., Fire Department, was killed by a bullet while trying to extinguish a fire that had started in an overturned car.

According to the story pieced together by the police, the owner of the car and a party of two women and another man had made a tour of drinking places. The owner possessed a .45 automatic revolver and wanted to show his marksmanship but was dissuaded by his friends. He placed the gun in a pocket of the car. In rounding a sharp turn, the car turned over and caught fire.

Captain Bogen answered the fire alarm. He was standing near the burning automobile when the heat exploded a bullet in the pistol, and the metal entered his chest. He died before he could be rushed to a hospital.

A. V. Sammis With Ward LaFrance Corp.—A. V. Sammis has been appointed Sales Manager of metropolitan New York and New Jersey for the Ward LaFrance Truck Corporation. His office will be at 130 W. 42nd Street, New York City.

Chief Casey Traces Cambridge History

Chief James M. Casey, of the Cambridge, Mass., Fire Department, was a speaker at the February meeting of the Cambridge Zonta Club at the Riverbank Court Hotel. He told of the history and development of the Cambridge Fire Department and related that his father had spent fifty-one years in the fire service of the city, serving as Chief from 1879 to 1905. An uncle of the Chief drove the first steam fire engine in Cambridge.

Chief Casey was appointed as a call fireman by Ex-Mayor Russell and became a permanent fireman in 1892. He was later promoted to Lieutenant and in 1905 became Assistant Chief under Chief Bunker who succeeded the elder Casey when the latter retired. The present Chief was appointed to head the Cambridge department in 1916 and has been Chief ever since. During his administration the department has been completley motorized. Chief Casey is a prominent member of the Fire Chiefs' Club of Massachusetts, the New England Association of Fire Chiefs, and the International Association of Fire Chiefs.

HARRY BELKNAP.

Chief "Patsy" McCartin Retires

P. D. McCartin, Chief of the Colorado Springs, Col., Fire Department, and also a colorful figure in northwest boxing circles is to retire from the fire service on April 1, at the age of sixty-nine after serving as Chief since 1909. Chief McCartin had not been in good health for several months, and after spending forty years of life in fighting fires in Milwaukee, Pueblo and Colorado Springs, he believes it is time to turn over his command to a younger man.

Chief "Patsy" McCartin

The name of "Patsy" McCartin is still remembered in northwest boxing circles. In those days, 20- and 30-round fights were common. He never took the count once. After his ring career, he had a gymnasium, trained boxers, and acted as referee.

In 1894 he started as Fire Warden in the Milwaukee Fire Department. After six years service, he went to Pueblo to take charge of the Fire Department. On September 1, 1909, he was invited to become head of the Colorado Springs Fire Department and he accepted.

Chief McCartin has a family of six girls and two boys—the boys are captains in the local department.

Charles R. Dailey who has been a member of the department since April 8, 1905, has been appointed to fill the vacancy.

Fund Asked for Illinois Drill School

A bill has been introduced in the Illinois legislature to provide for an appropriation with which to complete the drill tower at the University of Illinois and to provide equipment for it. A fund of $9,000 is desired. Since it is hoped to have the tower completed in June in time for the short course, it is hoped to have the measure take effect as soon as it is passed.

Ohio Township Forms Fire Department—A Fire Department has been formed in Sharon Township, Ohio, and it is believed to be the first township department in Franklin County.

Elmira Deluged by Firemen Applications—Because of vacancies reported to exist in the Fire Department of Elmira, N. Y., more than one hundred applications for fireman have been received. It is believed that before any examination is scheduled, the number will reach two hundred.

Eight-Hour Day for N. Y. Firemen?

A bill has been introduced in the Board of Aldermen that would provide an eight-hour day for members of the New York Fire Department.

Vincent J. Kane, President of the Uniformed Firemen's Association, who sponsored the measure, said:

"An eight-hour working day in the Fire Department would put a great many additional men to work in this city and would help considerably toward solving the unemployment problem in this community. Also the increased purchasing power placed in the hands of these men will help relieve the present economic depression.

In seeking the passage of the bill, the association asserted that under the present system, firemen worked an average of twelve hours a day. They are divided into two platoons, one on duty from 9 a.m. to 6 p.m., and the other from 6 p.m. to 9 a.m. Every sixth day, the men work a full twenty-four-hour day. It was pointed out that they were the only employees, Federal, State or municipal, who work more than eight hours a day.

Mr. Kane said that in an emergency no member objected to doing continuous duty. They considered this part of their service.

Maternity or Fire—They Answer

The Fire Department at West Hartlepool, England, has been undergoing an experience that is rare in firemanic circles, according to *Fire*, a London fire journal. It is mistaken for a maternity home.

On more than one hundred occasions in a month, the fire house telephone signal has been set in motion by as many anxious fathers who have asked:

"Is this 2222?"

"Yes," replies the man on duty, "West Hartlepool Fire Brigade."

"Fire brigade! I want to know how the wife is and whether it's a boy or a girl? Isn't this the maternity home?"

"No. Ring off."

And all because of a typographical error in an unofficial telephone directory recently published by a London firm.

Kansas Course to Be Held in Topeka

The Kansas Short Fire School will be held in Topeka, June 8-10. The subject to be treated will include the lightning hazard, instruction in first aid, fire-fighting appliances with demonstrations of many types of fire extinguishers, arson, fire prevention in fire departments, chemistry of fire, hydraulics of fire streams, drills and training, and life saving.

Newly Elected Chiefs

The following have been elected to head the Fire Departments in their respective municipalities:

Weston, Conn.—Rolland Gifford
Manchester, Ia.—E. W. Williams
Newton, Ia.—Earl Gigson
Barnsboro, N. J.—Melvin D. Kirkbridge
Toulon, Ill.—R. L. McClellan
Pennville, Mich.—Samuel J. Beagle
McHenry, N. D.—Martin Mobeck
West Springfield, Mass.—Fred H. Sibley
Sayreville, N. J.—Paul Janocha
Dover Plains, N. Y.—John A. Hanna
Carthage, N. Y.—Eli Foley

Fire Not Caused by Oil Burner

An account of a fire in Rochester, N. Y., in which about one hundred firemen were overcome by gas, appeared in the March 4 issue. The story stated that the fire was caused by an oil heater.

In a communication to the American Oil Burner Association, Donald A. Dailey, Commissioner of Public Safety, Rochester, N. Y., said after he had made an investigation:

"There is nothing to justify even suspicion that the oil burning apparatus in the building had anything to do with the fire. I personally saw the tank two-thirds full."

Anita, Ia., May Buy Fire Apparatus—Anita, Ia., is considering the purchase of fire apparatus.

Old Church Burns in Philadelphia—An old church at Franklin Street and Columbia Avenue, Philadelphia, was destroyed. The fire threatened the Northeastern Hebrew Orphans' Home nearby.

Fire House Opened in Salt Lake City—A new station, No. 8, has been opened in Salt Lake City, Utah. It will have five men on duty at all times. Equipment will consist of a chemical and hose combination car.

Salvage Operations at Fires

(*Continued from page 202*)

ferior leather in cheap shoes or gloves will give but little salvage if exposed to any extent.

24. Lighting Fixtures: Lighting fixtures are susceptible to breakage and to injury by debris and by water dripping from above. In displays, lighting fixtures are found hanging from the ceiling in large numbers. It is practically impossible to protect displays of suspended lighting fixtures. Frequently fixtures are hung from a false ceiling or deck at the level of the ordinary living room ceiling to display the fixtures more effectively and to facilitate wiring. Such false ceilings should be of strong construction and watertight. Exhibition of a large number of fixtures hanging from ceilings should be discouraged.

25. Millinery: Millinery can be broadly classed under three different headings: (1) staples, such as velvets, velveteens, silks, laces, trimmings, ribbons, wires, and buckram; (2) Plumes; (3) fancies, consisting of flowers, feathers, birds, maline, chiffons, and ornaments.

Staples are more than likely to be in fancy colors and are therefore subject to greater damage. In the fancy section the loss may be excessive. Flowers are nearly always wired together, and even when this wire is covered, the water will reach it at the joint, in a short space of time the wire will corrode, and the flower will separate from the stem. In nearly every style of fancy the joining is done either by wire or glue, and when the wire is affected, as above stated, the glued fancies will fall apart, water seeming to kill all the virtue in the glue. Wings and birds are sometimes put together by the same method and the same damage results. Feathers will, if wet, stick together in little bunches. They will never, even after drying, look the same and are decidedly unsalable. Plumes are the best of the articles that are not strictly speaking, staples.

Maline and chiffons are absolutely of no value if they are once badly wet, even though the colors are fast. A starchy substance is used to give them a certain body and sheen; as soon as moisture touches them, the life immediately leaves them. The buckles and ornaments are subject to different degrees of damage. These are made of cut steel, glass, aluminum, celluloid, rubber and bone. The glass will not damage unless the fire actually touches it, celluloid will ignite if exposed to very little heat. The rubber ornaments are made of some substance in conjunction with rubber, and it does not take much heat to melt them. Untrimmed hats are made of various materials such as, felt, velvet or straw. Felt will spot from water worse than any other material, and the cheaper the felt, the more susceptible it is to damage. The principal damage to untrimmed velvet hats is the lining, which is usually of Buckram. This Buckram, when exposed to dampness, will shrink away from the velvet, and even if the velvet is not damaged, will cause serious damage, as the value of an untrimmed hat is usually more than 50 per cent labor. In straw shapes, the damage is regulated by the grade of material. Straws of poor shape are filled with glue dressing and water will take all the shape out of them. The better grades of straw keep their shapes very well, and will reblock. To reblock the Panama straw it is steamed or soaked in water and then put on a block to reshape. Generally the only chance for salvage to be realized on a trimmed hat is the possibility of some part of the lining or trimming being utilized.

(*To be continued*)

Firemen Injured in Dallas

Fire apparatus of Dallas, Tex., speeding on its way to a fire, crashed into a street car, the operator of which claimed he did not hear the sound of the siren until it was too late to avert the accident. Five firemen were injured, two of them seriously.

The driver of the apparatus attempted to miss striking the car by turning west, but it was too late. The apparatus plowed into the front vestibule and swung broadside into the side of the car. A fire officer was crushed between the car and the truck. The street car was knocked from the rails.

Portland College Analyzes Fireman's Job

(*Continued from page 200*)

been blocked out in a series of four blocks, having to do with: (1) house work; (2) drills; (3) patrol duty; and (4) fire duty. The blocks in turn have been divided into further detailed outline and set forth in the order of their complexity.

The following, which represents excerpts only of the analysis, will illustrate the manner in which it was outlined, and may be of some assistance to other departments in determining just what their job contains:

Analysis of the Work to Be Done by a Hoseman in Portland, Ore.

BLOCK I—HOUSEWORK JOB		TECHNICAL KNOWLEDGE				AUXILIARY INFORMATION	
UNIT SPECIFICATION AND TYPE JOB	OBJECTIVE	DRAWING	SCIENCE	MATHEMATICS	TRADE TERMS	CARE OF TOOLS, MATERIALS AND EQUIPMENT	SAFETY AND HYGIENE
4. Washing. a. By use of soap and water, soap powders and bicarbonate of soda, lye, coal oil, on woodwork, windows, lamp shades and globes, exterior, cuspidors, lavatory, bathroom, sidewalk, stove, cooking utensils, food lockers, apparatus, batteries.	Ability and knowledge in use of washing compounds and other washing materials, and what to appy to get best results.		Exercise care in quantities of cleaning compounds and disinfectants used so as not to injure paint or surface. Do not use excessive amount of water on floor or apparatus, exterior of house and sidewalk. Use lavatory brush on lav. and cuspidors. Do not use hot water on apparatus. The average grade of wash powder can be used conditionally if floor is dirty, about ¼ pound to pail of warm water. Good semi-liquid or soft soap will bring better results providing right kind is used. As it is more free from lye and injurious ingredients, it will keep a better finish on both floor and woodwork. In washing batteries use saturated solutions of bicarbonate of soda and water to remove chemicals, deposits on terminals, etc. Wash out all grit.	Consult container for direction of amount to be used.	Lysol. Lye. Bicarbonate Soda. Coal oil. Washing compounds. Washing powder. Chips. Soap. Cleanser. Ammonia. Water. Disinfectant. Sponges. Deodorant. Squeegee. Chamois. Gardenhose. Lavatory brushes. Brooms. Scrubbing brush. Buckets.	Use grease on battery terminals to prevent corrosion. Clean lavatory brush after using and disinfect. Keep tools in proper place and dry. Use soap and water and soda on hose butts. Chamois and sponges should be washed and dried properly. To prepare and clean chamois skin, soak in lukewarm water for two or three hours. Use good soap; make lather on both sides, then rub well for 15 or 20 minutes; spread on board or bench: take little clay or earth. Apply on both sides with soap. Rub well for 5-10 minutes, then rinse in lukewarm water. Wring well and rub on glass. If any lint sticks to glass it is not ready for use. Wash again in same water with soap. Use the same test.	Use Lysol for disinfectant and deodorant. Use little water around electric fixtures, globes and shades. Use of lye. Rags used with coal oil should be disposed of. Disinfectant. Cuspidors.

(*Continued on next page*)

Study of the Drills Employed by Portland Fire Department

(*Continued from page 213*)

BLOCK II—DRILLS		TECHNICAL KNOWLEDGE				AUXILIARY INFORMATION	
UNIT SPECIFICATION AND TYPE JOB	OBJECTIVE	DRAWING	SCIENCE	MATHEMATICS	TRADE TERMS	CARE OF TOOLS, EQUIPMENT AND MATERIALS	SAFETY AND HYGIENE
Outside Drill. a. Pumper. 1. Laying in. 2. Taking hydrant. 3. Applying nozzle. 4. Engine hook-up. 5. Cistern hook-up. 6. Raising ladders, and climbing. 7. Operating pumps. 8. Carrying hose. 9. Standpipe hook-up. 10. Special connections and equipment. 11. Use of rope and knots. 12. Care of hose and equipment. 13. Care of hose butts. 14. Use and operation of syphon.	Ability to be fast, observing, take interest in work, to remain calm and cool under fire conditions, to have confidence in self. Applying nozzle.		One man at hydrant. Lay line straight as possible close to curb, free of kinks. Exercise care not to damage other hose or hose connection. Lay in enough hose to reach any part of fire. Tighten leaky hose butts. Take caps off hydrant. Put on Chapman gate. See that Chapman gates are closed. Hydrant wrench on hydrant. Wrap hose around hydrant to make fast. Get off rig about 30 ft. before reaching hydrant. Be sure hydrant is wide open. Check all valves to get maximum flows. Check for gaskets. Applying nozzle. Pull off enough working line. Break line. Look for gasket. See that nozzle is closed. Two ways of applying nozzle: (1) with assistant; (2) alone. Exercise care not to damage threads. Check nozzle for proper size top. Remove tip to apply small hose. Two ways of pulling of hose: (1) straight out; (2) in folds. Know when, how, and why to shut off nozzle.		Hydrant. Laying in. Pumper. Curb. Kinks. Chapman gate. Gate valve. Hose. Hose connection. Nozzle. Gaskets. Spanner. Gate key. Friction blocks. Hose jumper. Valve stem. Hydrant caps. Bleeder valve. Suction: Hard; Soft; Large; Small. Standpipe Standeer. Applying nozzle.	Applying nozzle. When small hose is used, responsibility for tip belongs to man in charge of line.	Exercise care in jumping off apparatus. Keep your "slow down" apparatus to enable man laying in to get off rig. Man laying in wraps hose around hydrant or stationary object. Applying nozzle. See that nozzle is closed. Exercise care not to drop hose butts or nozzle. Know men, how and why to shut off nozzle.

Sager Chief of Muskogee, Okla.

Henry P. Sager, who has been serving as Acting Chief of Muskogee, Okla., since the retirement of Chief George Higginbotham after twenty-three years of service, has been appointed as head of the Fire Department.

Chief Sager began his career under Ex-Chief Higginbotham in March, 1908, and he has been with the department since then. His promotions were rapid. In 1910 he became a Captain in the department, in 1916 he became Assistant Chief. When Chief Higginbotham was forced to leave active service because of his health, Chief Sager was named Acting Chief.

Mr. Higginbotham joined the Fire Department in 1906 and became Chief in 1929. His service record was broken by three resignations and one trip to the Canal Zone, where he served as a fireman in Balboa and Ancon.

N. F. P. A. to Meet in Toronto

Plans are being made for the thirty-fifth annual meeting of the National Fire Protection Association which will be held in Toronto, Canada, May 11 to 14. This is the second time that the association will meet in Canada—the 1919 meeting was held in Ottawa.

The entertainment features include a dinner, dance, a drive around Toronto and a post-convention trip to the Welland Ship Canal, a hydroelectric plant and Niagara Falls. Full details concerning this trip will be announced in April.

A special train will leave Chicago on Sunday May 10 and all planning to travel this way should write to James S. Mahan, 122 S. Michigan Avenue, Chicago. A special train will also leave New York the same day and the New York Transportation Manager is C. J. Peacock, 109 Leonard Street, New York City.

New York Increases Widows' Pensions

Fire Commissioner John J. Dorman on March 1 notified five hundred and fifty widows, guardians and dependents of deceased members of the New York Fire Department that their annual pension is increased from $300 to $600 a year. The increase will be contained in the monthly pension checks received on April 1.

This action by the Fire Commissioner is in accordance with the provisions of Local Law No. 24, approved by Mayor James J. Walker.

The increase involves an additional annual expenditure of about $165,000. It is a mandatory provision of law.

Short School to Be Held in Durham

The North Carolina Fire College will be held in Durham, N. C., April 14-16, under the auspices of the North Carolina Firemen's Association.

Those attending the school will have an opportunity to observe practical fireproof methods. The students will be given a chance to inspect one of the largest entirely fireproof universities, methods used in making a large hospital safe from fire, and the means employed by a very large industry in protecting its plant against fire. The I. A. F. C. talking motion picture on salvage work will be exhibited.

Special rates have been made by hotels in Durham and according to Sherwood Brockwell, in charge of the course, excellent rooms can be secured for $1.25 to $1.50 per person and meals at fifty cents each.

Los Angeles Buys Fleet of Automobiles—Los Angeles will purchase fifteen new Chevrolet sedans and two Buick sedans for use of the Fire Department. They are for the use of fire prevention inspectors.

The Round Table

(*Continued from page* 204)

we will see windshields on nearly all apparatus, both for city and country use.

W. Boyer, Chief, Ironwood, Mich.: I am highly in favor of windshields for fire apparatus. I always sit on the front seat with the driver. We rode to a fire this winter in a hail storm and I had to close my eyes. I really do not understand how the driver ever got to the fire. Although we have not had windshields on apparatus, we are going to get them in the spring.

James McGann, Chief, Stillwater, Minn.: I am heartily in favor of windshields for every piece of fire apparatus. Our city bought two pieces of fire apparatus in 1917. Neither one had windshields. However, they now have shields. We are about to purchase a new piece soon and it will be similarly equipped.

W. G. Harris, Chief, Bluefield, W. Va.: I believe cabs and non-breakable windshields with good wipers would add greatly to the comfort of the drivers. I really can not see the use of having a windshield without the cab. After fighting a fire ten or fifteen miles away from the fire station it is very disagreeable to ride back in an open truck.

F. J. Ostertag, Chief, Burlington, Iowa.: None of our trucks are equipped with windshields and I have always believed that they would be a detriment to the driver in snow, sleet and fog, as they would have a tendency to impair the drivers vision.

A great many times I have been compelled to open the windshield on my car in order to get a clear vision of the road in fog and sleet.

We do not serve rural territory except in extreme emergencies; consequently our men are not exposed to th elements for any great length of time while driving.

B. Sybrant, Chief, Bellingham, Wash.: We installed windshields on our newer apparatus and find them satisfactory in every way. It saves the men from the elements of the weather, and I do not think there is any more chance for accidents—I think there is less. I believe it is safer during rain and sleet on account of windshields protecting the drivers' eyes and giving him a clearer vision. We are at present considering installing them on all of the older apparatus.

A. Dale Ford, Chief, Princeton, Ind.: The question of windshields on fire apparatus has often been discussed at our meetings, and we are all convinced that they are practical and a necessity.

Our city is noted for its beautiful shade trees and in wet or icy weather they are a great menace to our drivers' eyes.

E. G. Wheller, Chief, Grinnell, Iowa,: My opinion of builders of fire apparatus that do not equip their product with shatter-proof windshields, is that they are as far behind times as automobile manufacturers were thirty years ago. We answer a good many country alarms within a radius of five miles. Our drivers have been very fortunate not to be injured by flying rock as most of our roads are surfaced with crushed rock, except of course, the highways which are paved.

J. A. Thompson, Chief, Nevada, Mo.: I have put a windshield on one piece of apparatus for the drivers and it has proven satisfactory. For stormy weather and winter months windshields are very essential and they should be on all trucks. We use isinglass in a frame.

W. C. Green, Chief, Concord, N. H.: Windshields have been use here on apparatus for a good many years. We consider them indispensable.

Wm. J. Johnston, Chief, Marquette, Mich.: Windshields should be installed on fire apparatus by all means, not only as a protection for the drivers but as an aid in driving safely. They are certainly needed in a section like this which is subject to blinding snow storms and zero weather. We have all our machines equipped with windshields.

George E. Bancroft, Chief, Auburn, Me.: We believe windshields are one of the best improvements ever made in this department. I think they are a real protection for our boys (19 in all—permanent men) and they all say that the shields are the "real thing." We have ours installed so they do not obstruct the men's vision in the least and they have proven very satisfactory.

W. H. Hill, Chief, Belmont, Mass.: All units in this department are equipped with what is called the Cambridge windshield. We find that this gives protection to the drivers and at the same time does not endanger a man from glass as this windshield is constructed without glass. I believe that all apparatus should have some protection for the driver.

J. C. Pierce, Chief, Woodstock, Ill.: I am very much in favor of windshields on all fire apparatus. It should be made part of the regular equipment. We have two trucks—one with windshield and one without. There is a vast difference in the comfort of the two. It is indeed unpleasant to ride on the one without the shield in cold winter weather, traveling at a high rate of speed, and it is also dangerous when driving in a snow storm as a driver can hardly see.

H. E. Whitney, Jr., Chief, Brattleboro, Vt.: We have windshields constructed on three of our fire trucks, built of non-breakable materials, the height of the windshields being about the same as the top of the drivers head, so that it is very easy to see over them. Our trucks have no cab on them.

Frank Clark, Chief, Belvidere, Ill.: We have three pieces of apparatus, two of which have windshields. The community truck goes as far as twelve or fifteen miles from the station and the windshield on it is necessary. We highly favor windshields.

L. L. Lessinger, Chief, Nampa, Idaho: I believe that windshields are practicable especially now that we have shatterproof glass. The bitter numbness of winter's sleet, rain and wind, and the blinding dust raised by other apparatus, certainly does not help a driver to meet a sudden emergency. Yet we ask our drivers to drive with the public's safety in mind.

Geo. W. Brown, Chief, Ipswich, Mass.: We have windshields on all our apparatus; one windshield has shatterproof glass. We have used them for years and would recommend them for all fire trucks.

H. P. White, Chief, Groton, Conn.: All trucks and pumpers should be equipped with shatter-proof windshields.

J. F. Noll, Chief, Harrisonburg, Va.: I see no reason, judging from my own experience, why windshields should not be put on fire trucks.

H. L. Beegle, Chief, Scottdale, Pa.: In answering distant fire calls in sleet and other disagreeable weather, the members are subject to some severe punishment, the drivers more so than the other members.

While a windshield would help some, I doubt if it would fulfill the purpose enough to justify having one on. About the only solution I see for fire departments located where they have long and severe winters would be to have a cab built on the apparatus.

While windshields are being used some I do not favor using them on fire apparatus.

John L. Casey, Chief, Abington, Mass.: I have had no experience with glass windshields or closed cabs on fire apparatus. In our town the apparatus is equipped with the Cambridge Windshield built by Augustus Gillis of Arlington, Mass. It has proven very satisfactory.

Previous to equipping the apparatus with windshields we had several long runs and one in particular with the thermometer registering two degrees below zero. We responded to a call from the Clapp Rubber Company fire at Hanover, Mass., a distance of twelve miles from Abington. The driver of the engine froze the fingers on both his hands.

I believe that should a windshield come in contact with a heavy electric feed wire, the possibility of a serious accident would be very great. However, I do believe that equipping fire apparatus with windshields is the cheapest and best insurance against accidents one can possibly provide.

M. J. Corrigan, Chief Fire Marshal, Chicago, Ill.: The installation of windshields on fire apparatus was one of the first improvements undertaken by our present Fire Commissioner, A. W. Goodrich, upon his appointment to that office. They have proven very beneficial and contributed very much to the comfort of the men.

We also have swinging windshields in front of the tiller seats on our aerial trucks, all windshields being equipped with wipers.

Basing my recommendation on our own experiences, I am positively "sold" on the idea of windshields on fire apparatus of all kinds, particularly is this true now with the rapidly increasing use of shatter-proof glass.

A. P. Kreher, Chief, Clearfield, Pa.: We have one hose wagon equipped with a windshield. I would hesitate to recommend equipping trucks in this way on account of the danger from flying glass. Shatter-proof glass may solve the problem.

James Black, Chief, Grand Forks, N. D.: All our apparatus are equipped with windshields. It would be rather diffi-

cult to get along without them, especially in a country where the temperature goes as low as thirty or thirty-five degrees below zero. We find it a great protection to the driver both in winter and summer.

John G. Neithammer, Chief, Reading, Pa.: I feel sure the use of unbreakable glass windshields would be a valuable asset to all drivers of fire apparatus. It would make them safe from loose wires and other obstacles, as well as protect them from the cold icy blasts of winter. I believe it would be a safety measure insofar that a man could drive the car with greater safety.

D. W. Noonan, Chief, Vallejo, Cal.: Since non-shattering glass is being used for windshields, there are many points in favor of installing windshields on fire apparatus. Without a doubt they would be an added protection and comfort to firemen riding on the truck. There must be someone to lead with this improvement as with all others. The question is, what dependable and reputable department is to first install windshields on its apparatus in order to prove the worth of such an improvement?

Burton G. Snyder, Chief, E. Durham, N. Y.: We have a triple combination pumper which was not equipped with a windshield. About a year ago we bought a windshield and side wings of shatter-proof glass and mounted it. The cost was very little and one ride on a cold windy night out of town well demonstrated the value of it.

* * *

ANSWERS TO PREVIOUS QUESTIONS

The following replies relate to the question: What merit or demerit system do you follow in your department?

C. V. Hedges, Chief, Huron, S. Dak.: This being a strictly volunteer fire department, we have no merit and demerit system. We have no way of rewarding our men for good services rendered.

Any member whose conduct is unbecoming a gentleman is brought before the Executive Board for a hearing and if found guilty of the charges registered against him, he is asked to resign from the department. The accused member has the privilege requesting a hearing before the entire department whose decision on the matter is final.

M. P. Burns, Chief, Tyler, Tex.: We use the merit system in our department: Infraction of regulations calls for suspension; first offense, five days suspension without pay; second offense, ten days suspension without pay; third offense, fifteen days suspension without pay; fourth offense, discharge from service.

I am proud to say I have never found it necessary to give but one man a five-day suspension and have had no further trouble.

J. C. McEachern, Chief, Haynesville, La.: We have a volunteer department and meet every Monday night, each fireman being requested to be present at these meetings. Should a member be absent from more than three meetings, he is required to pay a small fine.

I offer a prize the first of each year to men who attend all meetings and fires and they all try to get the prize. When any of the men leave town, they are required to notify me and should a fire occur or should we hold a meeting during his absence there is no charge against him at the end of the year.

I find this system works very satisfactorily with the men.

Chief Kenlon Retires

(*Continued from page* 206)

Mere words which I might endeavor to use would not express by any means, my sincere appreciation for the advice and help I have received at your hands during the time we have been together.

It is with pleasure however, that I am retiring you on full pay, and at the same time hope that during the years of your retirement your pathway will be strewn with the roses of happiness and good health, and that you will always feel my door and arms are always open to welcome you to come in and have a good old-time chat as of yore.

With warm personal regards to you and the Kenlon Family, I remain,

Sincerely yours,

JOHN J. DORMAN,
Fire Commissioner.

Chief Kenlon responded in another letter as follows:

My Dear Commissioner:

On the eve of my retiring I want to express to you my sincere thanks for the many acts of kindness you have shown towards me and the uniform courtesy and consideration that you have always given to all suggestions I have had to make.

As I have stated to you verbally I am lonesome leaving and, indeed, it is no wonder considering the many pleasant days we have had together.

I wish you every success in your administration and let me assure you that if the time should come and you may wish to consult with me on any matter pertaining to fire engineering and its various branches I shall be ready and willing to serve you.

I wish you would express to His Honor Mayor Walker my sincere thanks for his uniform courtesy and generosity to me during all the years of his administration.

Very sincerely,

JOHN KENLON,
Chief of Department.

Commissioner Dorman designated Assistant Fire Chief Thomas F. Dougherty to be Acting Chief of Department pending the promulgation of a civil service eligible list. Mr. Dorman immediately asked the Municipal Civil Service Commission to call an examination for promotion to the rank of Chief of Department. The temporary designation of Chief Dougherty to command the uniformed force is based on his seniority in the service. He was appointed forty-three years ago. The two other Assistant Chiefs of Department, Patrick Walsh and John J. McElligott are in the service twenty-nine and twenty-five years respectively. There are thirty-three deputy fire chiefs eligible to enter the competitive examination for promotion to Chief of Department, provided they meet the physical and mental requirements first. It is likely that at least half that number will compete. The Assistant Chiefs of Department are on the same civil service level with the Deputy Chiefs of Department.

Chief Kenlon was the first President of the Fire College from which hundreds of fire department officers from this and other cities have been graduated. Being an engineer, his skill and training were often resorted to in other fields. In the winter of 1917-18 when the city found itself snow-bound, Mayor John F. Hylan designated Chief Kenlon to be Chairman of a special committee to study the snow removal problem. This resulted in the acquisition of motorized equipment and a drastic reorganization of the operating features of the Department of Street Cleaning.

Chief Kenlon's name appears three times on the Roll of Merit for personal risk—1896, 1898 and 1910.

Excepting for annual vacations and Saturdays and Sundays, Chief Kenlon as the commanding officer of the fire department was on twenty-four hours continuous duty. During the World War period, when New York Harbor and hundreds of warehouses were alive with shipping of both ammunition and stores for American troops, he "never took his shoes off in his own house for two years" to repeat a familiar phrase of his own. It is believed that constant and unswerving devotion to service was also a factor in the determination to grant him full pay as pension.

Workmen Saved by Apparatus Test

Twenty-five men working under a church in Greene, Ia., owe their lives to the chance that prompted the Fire Department to test its new apparatus at a playground near the church.

The building had been raised on large jacks to make it possible to construct a basement. When the apparatus rolled into the playground, the men left their work to watch the demonstration. Shortly afterwards the whole bracing structure of the church collapsed. The rear of the church crumbled into the excavation, and the steeple which is over one hundred feet high, was thrown over thirty degrees from the perpendicular.

Ex-Chief Kopf of Highland Falls, N. Y. Dead—John B. Kopf, forty years old, formerly chief of the department in Highland Falls, N. Y., died February 23.

Ahrens-Fox Opens Chicago Sales Office—The Ahrens-Fox Fire Engine Company announces the opening of a district sales office at 1530 Burnham Building, Chicago. It will be in charge of James DeCourcy, who will handle sales matters in the territory made up of Illinois, Indiana, Wisconsin and Michigan.

Firemen Discharged by Railroad, Reinstated—A volunteer fireman who was also an employee of the West Shore Railroad, was discharged because after working at a fire, he reported late to work. The New Jersey and New York Firemen's Association protested such action and a letter was received from the Division Engineer of the railroad saying that the railroad had made a complete investigation and that the fireman had been reinstated in the railroad's employ.

FIRE PREVENTION ORDINANCE FOR CITIES AND TOWNS

It Establishes Bureau of Fire Prevention—Prescribes Regulations for Hazardous Materials and Processes

(Continued from last issue)

THE following Fire Prevention Ordinance has been prepared by Engineers of the National Board of Fire Underwriters and is recommended by that organization for adoption by cities and towns. While it is not expected that in all cases smaller cities will find need for an ordinance of such length, it is recommended by the Board that a complete set of regulations be adopted in all cases, for even though there may be no immediate need of regulation of a particular hazard, every growing community is sure to have these hazards introduced sooner or later, and it is better to be prepared for them than to develop unrestricted and then try to regulate them. The ordinance is being published in its entirety serially in FIRE ENGINEERING. *Continuation of Part* 15, *Refrigeration.*

1505. No system shall be placed in operation until the complete installation has been tested by the installer in the presence of the authority enforcing this code. A certificate of approval shall be posted on the premises where the system is installed. Tests shall include a vacuum test of the complete piping system, preferably with the evaporators installed, but valves thereon may be closed to prevent withdrawal of the refrigerant; under this test a vacuum of 20 inches of mercury shall be placed upon the system and shall be held for a period of 20 minutes, with no detectable drop, after the pump has been stopped.

After the vacuum test, the system of piping shall be tested by application of the pressure indicated in the table below:

Refrigerant Used	Test Pressures High Side Part Lbs. per sq. in.	Low Side Fart Lbs. per sq. in.
Carbon dioxide	1,500	750
Ammonia	300	150
Methyl chloride	180	80
Sulphur dioxide	135	50
Iso-butane	130	50
Butane	75	35
Ethyl chloride	50	25
Methylene chloride	15	15

1506. In systems exceeding 20 pounds capacity, the compressor, if not located in a machinery room, shall not be located under stairways or near dumb waiter or elevator shafts; shall be located as nearly beneath the riser as practicable; shall preferably not be in a room containing storage of combustible material; shall in any case be located at least 10 feet from such storage; shall be located in an accesible part of the building with adequate lighting facility provided; and shall be protected against mechanical injury by a noncombustible partition, or by heavy metal netting secured to two by four-inch wooden studding or to metal posts.

1507. Shut-off valves shall be installed at each service outlet in pressure and return lines, and in each riser or manifold connection at or near the compressor. These valves shall be fitted with a hand wheel or other means of ready operation as an integral part thereof.

Valves in service connections shall be located outside of refrigerating unit and at such distance above the floor as will provide ready accessibility.

Evaporators which may be removed as a unit shall have valves permitting the removal of the evaporator with valves attached.

1508. Service Conections

(a) Not more than a single tenant shall be supplied from an outlet box on a main riser. Such outlet box shall be located within the premises of the tenant served and so arranged as to be accessible at all times.

(b) No outlet or junction box shall be permitted in any hallway, stairway or vertical shaft not cut off at each story.

(c) Every refrigerator shall be rigidly secured in place.

1509. Every system containing over 20 pounds of refrigerant which operates above atmospheric pressure, and every water cooled system containing over 12 pounds of refrigerant and capable of producing a pressure in excess of the test pressure shall be provided with a pressure limiting device.

1510. Each system containing over 100 pounds of refrigerant shall have compressor or generator protected by a pressure-relief valve connected into the high pressure side between the main stop-valve and the compress or generator to relieve excessive pressure into the low pressure side of the system or to the atmosphere. Where discharge is to the low pressure side, a relief valve shall be provided on the low pressure side of the system.

1511. No stop-valve shall be located between a pressure relief device, or pressure limiting device and the part of the system protected thereby, unless two pressure relief devices of required size are used, and so arranged that only one pressure relief device can be cut off for repair purposes at any one time.

1512. Systems exceeding 20 pounds capacity shall have a pressure relief device on shell type apparatus, such as liquid separators, liquid receivers, condensers, evaporators and absorbers, which can be shut off by stop valves.

1513. Every system containing more than 100 pounds of refrigerant shall be provided with a hand-operated relief for discharging the refrigerant in case of fire, either to the atmosphere or to a suitable body of water. For systems containing irritant or flammable refrigerants, the discharge to the atmosphere shall be through a proper diffuser above the roof of buildings within 50 feet. The hand-operated relief valve shall be located outside the machinery room, or shall be capable of operation from the outside.

1514. A rupture member may be substituted for the relief valve in carbon dioxide systems or systems operating below atmospheric pressure.

Part 16.—Matches

1601. No person shall manufacture, transport, store or sell matches exceeding in aggregate 60 matchman's gross (14,400 matches each gross) without securing a permit from the Chief of the Bureau of Fire Prevention.

1602. Application for permit shall be made in writing and shall set forth in detail, location of proposed storage or place of sale, or method of transportation; character of building construction, location of storage or place of sale within the building, kind of matches involved and type of containers. If, after an inspection of premises, the provision of this ordinance are found to have been complied with, permit shall be issued.

1603. Wholesale Storage.—At wholesale establishments and wherever matches exceeding the quantity specified in Section 1601 are stored, shipping containers containing matches shall be arranged in piles not exceeding 10 feet in height with aisles at least 4 feet wide.

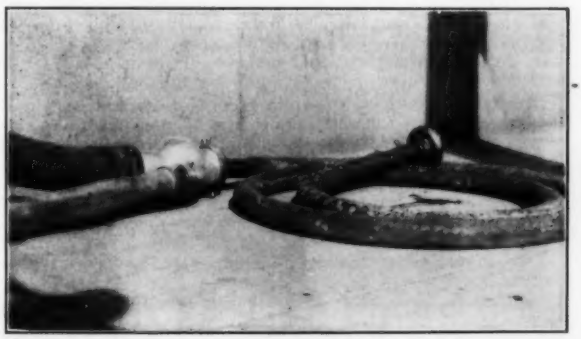
1604. Where other materials or commodities are stored on the same floor with matches, a corner, and/or other portion of the room shall be devoted to match storage exclusively, and a clear space of not less than 4 feet maintained between match storage and such other materials or commodities.

1605. No matches shall be stored within 10 feet of any open elevator shaft, elevator shaft opening, open stairway or other vertical opening.

(To be continued)

Compact Mop-Up Equipment

A unit consisting of a siphon, a siamese and twenty-five feet of two-inch hard suction provided with a specially designed strainer, is being marketed by the P-B Products



Mop-Up Unit Made for Fire Department Use

Company, Inc., St. Louis, as a mop-up unit for fire department use.

In using this unit, it is not necessary that the siphon be placed in the cellar that is to be freed of water. The siphon can be placed on the sidewalk above, and the special strainer outlet attached to the hard suction can be used to draw up the superfluous water. The siphon, it is claimed, will work just as efficiently even if placed on its side.

FIRE DEPARTMENT ACTIVITIES

Harrisburg, Pa., to Add Fire Alarm Boxes—Harrisburg, Pa., is to purchase forty-eight fire alarm boxes.

Canton, O., to Extend Fire Alarm—Plans are being made for the extension of the fire alarm system in Canton, Ohio.

Beverly, N. J., to Buy Fire Apparatus—Beverly, N. J., is considering the purchase of a 1,000-gallon pumper.

Firemen Ask for New Pumper—Firemen of Garfield, N. J., have petitioned the council for the purchase of a pumper.

St. Peters, Mo., Buys Fire Apparatus—St. Peters, Mo., has purchased a 300-gallon pumper.

Davenport, Ia., to Erect Fire House—Contracts have been let for the construction of a new fire station in Davenport, Ia.

Department Organized in Alloway, N. J.—A new Fire Department has been organized in Alloway, N. J., with Harry Griffith as Chief.

Los Angeles to Erect Two Fire Houses—Los Angeles has appropriated $44,713 for the construction of two fire stations in the San Fernando valley.

Hagerstown, Md., May Form New Company—Hagerstown, Md., is considering the formation of a new fire company for the southern section of the city.

Eastchester to Have New Fire House—The township of Eastchester, N. Y., will have a new fire house costing $50,000. The building will be of the bungalow type.

Long Island City to Have New Houses—New York City has authorized the purchase of land in Long Island City on which to erect two new fire stations.

Monticello, Ia., May Purchase Apparatus—Farmers in the vicinity of Monticello, Ia., are considering the purchase of community fire apparatus.

Vancouver Working for Fire Boat—Vancouver, B. C., is planning to place a fire boat on Burrard Inlet and to provide additional waterfront protection.

Brackenridge, Pa., to Have Fire Alarm—Brackenridge, Pa., is to install a Gamewell fire alarm system, consisting of twenty-five fire alarm boxes.

Rensselaer, N. Y., Holds Fire School—A fire school has been held in Rensselaer, N. Y., the first to be conducted in that city.

Council to See Fire House Plans—Plans for the new $60,000 fire department headquarters for Erie, Pa., will be submitted to the City Council for consideration.

Burlington, N. J., to Buy Aerial Ladder—The council of Burlington, N. J., has included in the 1931 budget an appropriation for an aerial ladder truck.

Guthrie, Okla., Has New Apparatus—Two Mack triple combination pumpers have been delivered to Guthrie, Okla. The delivery of a 65-foot aerial ladder is expected soon.

Minneapolis Plans State Warehouse—A warehouse is being planned for Grand Rapids, Mich., to be used to store state forestry equipment and which will serve as a central mobilization point when extra help is required.

Cleveland Has Large Application List—Over one thousand men applied for positions in the Cleveland, Ohio, Fire Department. From this number four hundred were selected to take the test and 185 received passing grades.

Oshkosh, Wis., Wants Master Mechanic—A full-time mechanic has been recommended for the Fire Department of Oshkosh, Wis. Last year a workshop with mechanical equipment was installed but no mechanic was provided.

Two Rivers Chief Invents Flashing Signal—Chief Arthur Rain of Two Rivers, Wis., has invented a flashing red signal for use on fire apparatus. It consists of four lights that flash on and off when the apparatus is answering a call.

Irvington, N. Y., May Erect Fire House—Irvington, N. Y., is considering the construction of a new fire station to cost $50,000. The question may be submitted to the residents at the spring election.

Denver Fireman Crushed by Fire Apparatus—A Denver, Col., fireman was caught between the apparatus and the door of the fire station as the apparatus rolled out in answer to an alarm.

Frederick, Md., Reports Low Fire Loss—Frederick, Md., a city of 15,000 population, reports a 1930 fire loss of $1,500. The department consists of three volunteer engine and one truck companies.

Newton, Kan., to Protect Rural District—Special apparatus has been purchased, to be housed in Newton, Kan., for the joint protection of eight townships. The apparatus will be operated and manned by the Newton Fire Department.

New House Opened in Auburndale—Fire Commissioner John J. Dorman officially opened a new fire house in the Auburndale section of New York City. It is the first building to be constructed in accordance with new designs adopted by the department.

Iowa Considers Training Bill—A bill has been introduced in the Iowa legislature to provide for a firemen's training course at the Iowa State College. The bill has provision for a $50,000 appropriation to construct a drill tower and for the salary of an instructor for a two-year period.

Chief Speddy Submits Annual Report—According to the annual report of Chief Joseph H. Speddy of Lakewood, Ohio, none of the fires in 1930 extended beyond the building of origin. The city has a population of 70,500 and had 375 fires. The total damage on buildings and contents was $38,668.

Fire House in Youngstown, O., Condemned—Two city inspectors of Youngstown, Ohio, have condemned the central fire station and have ordered that it be abandoned soon. It is believed that two small stations, rather than one large one, will be erected in the downtown section of the city to house the apparatus thus forced to vacate.

Fire House Opened in S. Ozone Park—Fire Commissioner John J. Dorman of the New York Fire Department attended the ceremonies arranged for the opening of the new fire station in the South Ozone Park section in the borough of Queens. The station was erected at a cost of $60,000. The New York Fire Department band was present.

San Diego County Firemen Meet—Firemen from all parts of San Diego County, Cal., met in Oceanside, Cal. Lieut. B. J. Johnson of the San Diego Fire Department delivered the third of a series of five lectures on how to rescue disabled persons. President Luther Gordon presided.

Farmers Ask to Form Department—Farmers of Noble township, Ind., are urging that fire apparatus and equipment be purchased for fighting rural fires. The township would pay the salary of one fireman throughout the year. Wabash, Ind., would have the use of the apparatus, and in turn would permit two firemen of the department to answer rural calls with the paid fireman and apparatus.

Chief Marienau of Ireton Re-Elected—Fred Marienau, Sr., has been re-elected Chief of the Fire Department in Ireton, Ia., for the twenty-fourth consecutive year. This is the longest record held by a fire chief in northwest Iowa. Chief Marienau became a member of the department in 1896 when the organization depended upon the use of galvanized pails and small ladders.

Firemen Refused Permission to Fight Fire—Fire broke out in the Eagle Oil Works plant in the Black Tom section of Jersey City, N. J. The company is a subsidiary of the Standard Oil Company and it has sixty buildings and many oil tanks. Company men tried to fight the fire and then because of the request by police, Battalion Chief Ray and some companies responded but were refused admittance. He finally succeeded in entering the plant.

Vibration Affects Cleveland Fire Alarm—Edwin D. Barry, Safety Director of Cleveland, Ohio, has recommended that the central fire alarm instruments be moved from its present location due to the excess amount of vibrations caused by street cars, trains and trucks. He pointed out that at an early date, piles will be driven for a new viaduct and the conditions will then become aggravated. The fire alarm superintendent said that it is difficult to keep the instruments adjusted.

Risks Inspected Quarterly in Stoughton—The Fire Department in Stoughton, Wis., makes inspections of the high value district four times a year, and all the other risks are inspected semi-annually. Due to these frequent inspections and to the cooperation given Chief Giles Dow by the property owners, the community has enjoyed a low fire loss for many years. The department consists of twenty-four carefully selected men. There is always a long waiting list of men waiting to join the department.

Another Special Feature!!

OF THE

MATHEWS MODERNIZED HYDRANT

Reg. U. S. Patent Office

THE COMBINATION MAIN AND DRAIN VALVE

THE main valve is the true compression type, closing *with* the pressure . . . thus preventing loss of water and resultant damage if the hydrant is broken. It is built up of the best oak tanned sole leather, held securely in place by a heavy bottom casting screwed onto the stem. It cannot work loose to leak or cause chatter. Being cone-shaped, the valve permits water to be turned on or off gradually, avoiding water hammer, and reducing the possibility of foreign matter lodging on the valve seat. The generously wide leather faced drain valve is assurance against leakage. It operates in a smooth bronze cylinder to prevent wear . . . Write for complete description that will show you why the Mathews has been a leader for over half a century.

R. D. WOOD & CO.

In business continuously since 1803

400 Chestnut St. Philadelphia

CAST IRON PIPE AND FITTINGS
SAND SPUN (centrifugally cast) and PIT CAST
Reg. U. S. Pat. Off. GATE VALVES

Comfort and Protection With
CAIRNS CUSHION LINED **HELMETS**

Comfortable as your old felt hat.
Won't shake off.
Never go to a fire without the protection of a good helmet.

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CAIRNS & BROTHER

Established 1836

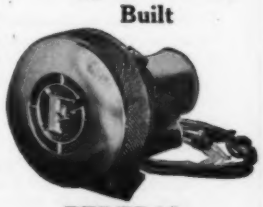
72 GRAND STREET NEW YORK, N. Y.

Slippery Streets

Fire or police apparatus speeding along slippery streets must give traffic ample time to turn out to safety. A powerful warning blast from the Federal Coaster Siren is heard for blocks ahead, even by drivers of closed cars. There is sufficient time for traffic to clear, even on slippery streets.

Just two seconds contact a block on the push button switch causes the Federal Coaster Siren to sound a continuous roar. Let us send you further details.

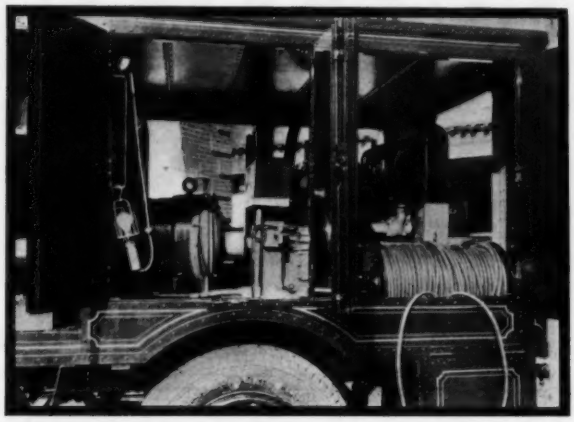
The Most Powerful Apparatus Siren Built



FEDERAL COASTER SIREN

Federal Electric Company
Signal Division
8702 South State Street Chicago, Ill.

Light as well as water comes to the aid of Chicago's firemen. Below is shown a Kohler Electric Plant installed on a special light-truck.



Where there's fire there's ➡ LIGHT

. . . when the fire department is equipped with Kohler Electric Plants. Armed with Kohler Plants, firemen are able to floodlight entire buildings, throw searchlights into dark, smoke-filled corners, spotlight rescue work.

Kohler Electric Plants have been chosen by small cities as well as large ones like New York, Chicago, San Francisco and Boston because:

(1) They are rugged, compact, easily moved about. (2) They are not affected by varying temperatures—operate efficiently in severe heat or cold. (3) They furnish light independent of the regular city-light circuits—an important point for fire departments. (4) There are models which can be mounted on the regular fire trucks and others which are mounted on special light-trucks providing current for numerous powerful searchlights. (5) Kohler Plants require a minimum of fuel. (6) They generate standard 110 or 220 volt A. C. or D. C. electricity.

Send the coupon for additional information about Kohler Plants. Kohler Co. *Founded* 1873. Kohler, Wis.—*Shipping Point,* Sheboygan, Wis.—*Branches in principal cities.* . . . Manufacturers of Kohler Plumbing Fixtures.

CITY OF CHICAGO
FIRE DEPARTMENT
Room 105, City Hall
January 5, 1931

KOHLER CO.
435 N. Michigan Ave.
Chicago, Ill.
Attention: Mr. R. W. Bensis

Dear Sir: In reply to your letter of December 19, 1930, I am pleased to inform you that the Kohler Electric Light Plants which have been in service in this department, have given perfect satisfaction in their operation.

Very truly yours,
(Signed) A. W. GOODRICH,
Fire Commissioner

KOHLER OF KOHLER ELECTRIC PLANTS

KOHLER CO., Kohler, Wisconsin
Gentlemen: Please send catalog describing Kohler Electric Plants.

*Name*_____ FE-3-18-31
*Street*_____
*City*_____ *State*_____
*Use in which interested*_____

BRAXMAR BADGES

Standard Over Fifty Years

OFFICIAL BADGE
Made in 14K Gold and Rolled Gold only

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Send for NEW catalog!

VOLUME is the proven answer to the foam question. This 30 foot tank completely blanketed and extinguished in 1 minute and 38 seconds with one NATIONAL Super Ejector.

NATIONAL FOAM SYSTEM, INC.
Philadelphia
New York Chicago Tulsa

Let the world's oldest and largest exclusive manufacturer of sirens solve your siren problems.

STERLING SIRENS

You will find in the Sterling line a siren for every purpose.

Sterling engineers are glad to give you their assistance.

STERLING SIREN FIRE ALARM CO., Inc.
61 Allen St. Rochester, N. Y.

Hedberg Super Sirens

"The World's Best by Test"

offer the world's greatest and most versatile range of choice involving sizes and methods of operation.

Write for descriptive matter showing sirens that have never lost in competition.

J. N. HEDBERG
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Fire Hydrants

Are given preference by so many fire protection and water works men because they know that more than half a century of experience go into their manufacture and they embody valuable and exclusive features.

Write for the Facts

EDDY VALVE CO.
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James B. Clow & Sons, Chicago Agents

Baker Fabric

A jacket weave which provides multiple jacket strength with single jacket flexibility. Write for details.

MANUFACTURED EXCLUSIVELY BY
HEWITT - GUTTA PERCHA
RUBBER CORPORATION
BUFFALO, N. Y.
(Also makers of single and double jacket hose)
"Territories Available"

G

The new Rensselaer Catalog "G" is now ready for distribution. Officials desiring the latest information on RENSSELAER VALVES and COREY HYDRANTS are invited to fill in and mail the coupon below.

RENSSELAER VALVE CO.,
TROY, NEW YORK.

Send Catalog "G" to

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A WORD TO OUR ADVERTISERS

Will you co-operate with us in our effort to keep the advertising pages of FIRE ENGINEERING just as live and interesting as the editorial pages? Send us new photographs and copy material, news matter, etc., for your advertising space just as often as possible.

Remember that you are not getting full value from your advertising unless you make it interesting, or give us the opportunity to do it for you. Think it over—and send us some new material.

THE PUBLISHERS.

PROPOSED IMPROVEMENTS

Brunswick, Maine—At town meeting $5,500 was voted for purchase of pumper for fire department.

Natick, Mass.—Special committee appointed to study needs of fire department recommended purchase of new apparatus for Central Fire Station at cost of $7,500, according to reports.

Little Falls, N. J.—At meeting of Township committee an ordinance was introduced which provides for purchase of new truck for Great Notch fire company, according to reports.

Newtown, Conn.—Plans are under way for erection of new $21,000 fire station, according to reports.

Victor, N. Y.—City to vote on $6,500 appropriation for purchase of pumper for fire department. Frank A. Ewer, Fire Chief.

Oildale, Calif.—Plans being made for formation of a volunteer fire department. I. E. Caldwell, Chairman of Committee.

San Jose, Calif.—Finance Committee recommended expenditure of $12,000 for new fire station in Hester district.

CONVENTION DATES

March 18—FIRE CHIEFS' EMERGENCY PLAN OF WESTCHESTER COUNTY. March Meeting, Fire Headquarters, Greenwich, Conn. Secretary-Treasurer, E. Riviere, Larchmont, N. Y.

April 14-15—NORTH CAROLINA FIRE SCHOOL. To be held at Durham, N. C., under auspices of North Carolina State Firemen's Association. Conductor, Sherwood Brockwell, State Insurance Department, Raleigh, N. C.

April 27-29—TEXAS FIREMEN'S TRAINING SCHOOL. 2nd Annual Meeting, Agricultural and Mechanical College of Texas, College Station, Tex. Director, H. R. Brayton, College Station, Tex.

May 11-16—NATIONAL FIRE PROTECTION ASSOCIATION. 35th Annual Meeting of Toronto, Ont., Can. Managing Director, Franklin H. Wentworth, 60 Batterymarch St., Boston, Mass.

May 18-20—FLORIDA STATE FIREMEN'S ASSOCIATION. 6th Annual Convention, Jacksonville Beach, Fla. Secretary, P. F. Pfaender, Winter Haven, Fla.

May 21—IOWA STATE FIRE CHIEFS' ASSOCIATION. Annual Convention, Ames, Iowa. Secretary-Treasurer, Chief L. R. Morris, Ames, Ia.

May 23—NEW JERSEY STATE FIRE CHIEFS' ASSOCIATION. Quarterly Meeting, Madison, N. J. Secretary, Fred A. Trowbridge, 17 South Street, Morristown, N. J.

May 25-27—OKLAHOMA STATE FIREMEN'S ASSOCIATION. 37th Annual Convention, Oklahoma City, Okla. Secretary-Treasurer, Charles Slemp, 820 East 19th Street, Oklahoma City.

June 3-5—NEW MEXICO STATE FIREMEN'S ASSOCIATION. 9th Annual Convention (Combined with Firemen's Short Course), Clovis, N. M. Secretary-Treasurer, Theodore A. Rosenwald. Albuquerque, N. M.

June 8-9—SOUTH CAROLINA STATE FIREMEN'S ASSOCIATION. 26th Annual Convention, Aiken, S. C. (Tentative date). Secretary, R. S. Hood, Sumter, S. C.

June 8-10—KANSAS STATE ASSOCIATION OF FIRE CHIEFS and KANSAS STATE FIREMEN'S ASSOCIATION. 15th and 44th Annual Convention, respectively, Topeka, Kan. Also, 3rd Annual Fire College and 6th Annual Convention, Women's Auxiliary. Secretary, Chief K. D. Doyle, Wamego, Tex. Chairman, Fire School Committee, E. J. Stewart.

June 9-10—MINNESOTA STATE FIRE DEPARTMENT ASSOCIATION. 59th Annual Convention, Owatonna, Minn., also, June 8, Annual Convention, the Minnesota Volunteer Firemen's Benefit Association, same place. Secretary, Fred Pfaender, New Ulm, Minn.

June 9-11—TEXAS STATE FIREMEN'S ASSOCIATION, 55th Annual Convention, Bryan, Tex. Secretary, Olin Culberson, Edna, Tex.

June 9-12—OHIO FIRE CHIEFS' ASSOCIATION. 14th Annual Convention, Akron, Ohio. Secretary, Chief Philip J. Harty, Youngstown Sheet & Tube Company, Youngstown, Ohio.

June 10-12—FLORIDA FIRE COLLEGE. 2nd Florida Fire College, Sebring, Fla. Address, Florida State Firemen's Association Fire College Committee, Chief Anderson, Ft. Myers, Fla., Chairman.

June 11-13—ARIZONA STATE FIREMEN'S ASSOCIATION. 8th Annual Convention, Flagstaff, Ariz. Secretary-Treasurer, H. W. Reggin, P. O. Box 813, Prescott, Ariz.

June 11-13—DELAWARE COUNTY FIREMEN'S ASSOCIATION. 25th Annual Convention, and Parade, Upper Darby, Pa. Financial Secretary, William E. Wunderlich, Lansdowne, Pa.

June 17—NORTHWESTERN OHIO VOLUNTEER FIREMEN'S ASSOCIATION. 59th Annual Convention, Port Clinton, Ohio. General Chairman of Convention, Harry Smith, Supt. Water Works, Port Clinton.

June 17-20—WASHINGTON STATE FIREMEN'S ASSOCIATION. 9th Annual Convention, Port Angeles, Wash. Secretary, S. H. Jenkins, Bellingham, Wash.

June 19-20—EASTERN ASSOCIATION OF FIRE CHIEFS. 4th Annual Convention, Madison Hotel, Atlantic City, N. J. Secretary, Ex-Chief F. E. Soulé, Conshohocken, Pa.

June 23-26—NEW ENGLAND ASSOCIATION OF FIRE CHIEFS. 9th Annual Convention, Copley-Plaza Hotel, Boston, Mass. Meetings, Paul Revere Hall, Mechanics' Bldg., Huntington Ave., and Exhibits, Grand Hall, Same Bldg. Secretary, Chief John W. O'Hearn, 99 Main St., Watertown, Mass.; Chairman Exhibits, Chief Daniel B. Tierney, Arlington, Mass.; Traffic Manager, George F. Cobb, 744 Albany St., Boston.

June 24—NASSAU COUNTY FIREMEN'S ASSOCIATION. 26th Anniversary Parade and Tournament, Great Neck, L. I., N. Y. Secretary, J. W. Lane. Chairman, Tournament Committee, Chief Henry N. Buck, Westbury, N. Y.

July 8-9—DELAWARE VOLUNTEER FIREMEN'S ASSOCIATION. 11th Annual Convention, and Parade, Dover, Del. Secretary, Sam H. Carson, Dover, Del.

July 13-16—MICHIGAN STATE FIREMEN'S ASSOCIATION. 57th Annual Convention, and 3rd Annual Fire College. Secretary-Treasurer, H. L. Williams, Luddington, Mich.

July 13-16—MONTANA STATE FIREMEN'S ASSOCIATION. 40th Annual Convention, and Firemen's Short Course, Bozeman, Mont. Secretary-Treasurer, D. E. Moser, Bozeman.

Aug. 4-6—WISCONSIN PAID FIREMEN'S ASSOCIATION. 24th Annual Convention, Oconto, Wis., Secretary-Treasurer, William Schultz, Sheboygan, Wis.

Aug. 5-7—CALIFORNIA STATE FIREMEN'S ASSOCIATION. 9th Annual Convention, Santa Rosa, Cal. Secretary-Treasurer, H. E. Strasser, 1171 Tenth St., San Diego, Cal. Chairman, Convention Committee, Chief William H. Muenter, Santa Rosa, Cal.

Aug. 11-13—INDIANA FIREMEN'S ASSOCIATION. 14th Annual Convention, Evansville, Ind. Secretary, Clem Smith, P. O. Box 520, Terre Haute, Ind.

Aug. 18-21—FIREMEN'S ASSOCIATION OF THE STATE OF NEW YORK. 59th Annual Convention, place of meeting to be decided later. Secretary, Fred A. Davis, Fort Edward, N. Y.

Sept. 1-3—KENTUCKY FIREMEN'S ASSOCIATION. 12th Annual Convention, Louisville, Ky. Secretary, Captain S. G. Render, Fire Department, Louisville, Ky.

Sept. 3-4—WISCONSIN STATE FIRE CHIEFS' ASSOCIATION. 2nd Annual Convention, Portage, Wis. Secretary, Chief A. J. Rahn, Two Rivers, Wis.

Sept. 8-10—ILLINOIS FIREMEN'S ASSOCIATION. 44th Annual Convention, Murphysboro, Ill. Secretary, Assistant Chief Roy W. Alsip, Champaign, Ill. Exhibit information, Chief Albert Herring, Murphysboro. Also, 1st Annual Convention, Ladies' Auxiliary of Illinois Firemen's Association. Secretary, Mrs. R. W. Alsip, Champaign.

Sept. 15-16—IOWA FIREMEN'S ASSOCIATION and IOWA FIREMEN'S FUNERAL AID ASSOCIATION. 54th Annual Convention, Audubon, Ia. Secretary, Paul A. Soener, Independence, Ia.

Sept. 19-22—PACIFIC COAST ASSOCIATION OF FIRE CHIEFS. 38th Annual Convention, Royal Hawaiian Hotel, Honolulu, T. H. Secretary, Jay W. Stevens, 1014 Merchants' Exchange Bldg., San Francisco, Cal.

Oct. 6-8—FIREMEN ASSOCIATION OF THE STATE OF PENNSYLVANIA. 52nd Annual Convention, Wilkes-Barre, Pa. Secretary, Charles E. Clark, 411 Bellevue Ave., Wayne, Pa.

Oct. 14-17—INTERNATIONAL ASSOCIATION OF FIRE CHIEFS. 59th Annual Convention, Plaza Hotel, Havana, Cuba. Meeting Hall, Asturiano Club. Recording Secretary, Chief James J. Mulcahey, Yonkers, N. Y.: Executive Secretary, Jay W. Stevens, 1016 Merchants' Exchange Bldg., San Francisco, Cal.; Chairman, Exhibit Committee, Chief Charles A. McGinley, East Orange, N. J.

Oct. 20-22—NEBRASKA STATE VOLUNTEER FIREMEN'S ASSOCIATION. 50th Annual Convention, Norfolk, Neb. Secretary-Treasurer, H. A. Webbert, Kearney, Neb.

William J. Carroll Promoted

William J, Carroll on March 1, has taken over his new duties as General Sales Manager of the Rockwood Sprinkler Company, and its subsidiaries with headquarters at Worcester, Mass. The appointment was made by V. C. Stanley, President of the Gamewell and Rockwood Companies.

William J. Carroll

Previous to his work with the Gamewell Company he spent several years with two of the country's largest advertising agencies. He left agency work to become Advertising Manager of the Gamewell Company and he filled this office for seven years. During the past five years he was Assistant District Sales Manager for that company.

When Mr. Carroll was promoted, to Assistant District Sales Manager, J. J. Ryan was advanced to fill the vacancy as Advertising Manager.

Mr. Carroll during his many years with the Gamewell Company has made friends with a large number of fire department and municipal officials.

S. C. Firemen to Meet in Aiken

Plans are being formulated at Aiken, S. C., for the South Carolina State Firemen's Convention which is to be held there in June. Tentative dates have been set for June 8-9.

Fire Chief Louis Behrens of Charleston, President of the association was in Aiken recently to confer with members of the Committee of Arrangements.

"We are expecting the biggest convention we've ever had," said Chief Behrens, in discussing plans. Over 3,000 members belong to the organization, which was formed in 1905 in Columbia with nineteen members.

Chief Behrens was elected President of the body when it was organized and has served as its President ever since. Chief S. E. Davis of the Aiken Fire Department and H. L. Johnson, Chairman of the Program Committee are enthusiastic over prospects for a big convention.

The first day of the program will be featured by a business session, and the annual election of officers; a tournament is planned for the second day.

D. G. SPENCER, JR.

Concord, N. H., Fire Loss Lowered—According to Chief William C. Green, the fire loss in Concord, N. H., for 1930 was the lowest in a twelve-year period.

FALSE ALARMS

Drawing by "Art" Espey

Inspector: Humph! I'll have to list this one as mixed occupancy, all right.

HE DID

A kind old gentleman whose keen delight was to wander along the streets studying human nature in general, saw a small boy trying to reach the handle of a fire alarm box. The old gentleman walked over, pulled the handle for the boy, and then asked:

"What now, my little man?"

"Run like hell," said the little boy. "That's what I'm going to do."

"Sir," said the fidgety maid, quite haughtily, "either take your arm from around my waist or keep it still. I am no ukelele."

TRAFFIC SIGNALS

Apparatus drivers have probably observed the following signals that seem to be in vogue at present:

Left arm extended and hand waved in a circle: I am undecided as to just what I will do at the next corner. I may turn left, I may turn right, and I may stop suddenly.

Left index finger pointing toward the north star: If you think I am making a right turn, you are mistaken.

Left hand extended with first and second fingers crossed: Please disregard any previous signals given by me.

Left arm hanging limp: I plan to stop at the next hot-dog stand.

Left arm forming an arc of thirty-seven degrees: Come alongside and tell me how many miles to the next cup of good coffee.

Left thumb turned down: I heard your siren the first time. If you think you can pass me, just try it.

Wriggling left little finger: Approach me rapidly. I want to stop quickly and see if your brakes are in good shape.

Separating the first and second fingers from the third and fourth: It is too cold to have the window open and I will give no more signals for the time being.

Turning first finger of left hand slowly in a circle: Keep your headlights out of my rear-vision mirror.

Shaking left hand limply, as if suffering from an attack of palsy: I think I just broke a spring. Go around me if you care to.

"Darling, I've made up my mind to stay at home."

"Too late, dearest, I've made up my face to go out."

JUST THE TYPE

The fire company was holding an important meeting. The new apparatus had arrived and it was necessary to select a driver. The fire commissioner who attended the meeting said:

"What we want is a candidate who isn't too radical nor too conservative —in short, a middle-of-the-road man."

"Then Simpkins is your man," suggested a member. "He's been a bus driver for years."

And here's how it is. If you are careful and save your money during good times you will be able to make loans to your relatives when a depression comes along.

THEY DID

"Where's old Four Fingered Pete?" asked Alkali Ike. "I ain't seen him around here since I got back."

"Pete?" said the bartender. "Oh, he went up to Hyena Tongue an' got jagged. Went up to a hotel winder, stuck his head in an' hollered, 'Fire!' an' everybody did."

No man should drive a car while intoxicated. It's hard enough to get the pedestrian you're after even when you're sober.

POINT OF VIEW

There was quite a discussion after the promotional examination, as to the proper method of solving a problem on where to place a water tower to do the most work. One excited fireman made a bet and lost. And so he and the winner, went to a rather fashionable restaurant.

"What would you like?" asked the one who lost.

"Let me see. I'd like some caviar, an order of frogs legs, a big sirloin steak . . . "

"Just a minute," interrupted his friend. "That is all very well. But, now, what will you have?"

EVIL THOUGHTS

Two little boys would jump the fence and play in the yard back of the fire house so that they could admire the shining apparatus. But sometimes the youngsters were not appreciated and were rushed out.

One little boy went home and said to his mother:

"I don't think that the big fat man knows much about music."

"What makes you say that?" asked his mother.

"Well, he just told me to cut my drum open and see what was inside of it."

Drawing by "Art" Espey

"That reminds me, Bill. I told the old lady to have smoked herrings for supper."

YOUR CATALOG PAGE

Fire Protection Equipment and Supplies

1 Acid Siphons.
2 Adaptors for Changing Hydrant Threads.
3 Acid Jars and Rings.
4 Aerial Ladders, Detachable.
5 Aerial Trucks.
6 Alarms, Siren, Electric.
7 Alarm Systems, Industrial.
8 Alarm Systems, Municipal Telegraphic.
9 Alarms, Thermostatic.
10 Asbestos Clothing.
11 Badges, Insignias, Buttons, etc.
12 Banners, Trumpets, etc.
13 Battery Jars.
14 Battery Zincs for Fire Alarm Batteries.
15 Bells, Fire Alarm, Municipal
16 Body Equipments.
17 Boxes, Gongs, Reels, Registers, Fire Alarm.
18 Brakes, Air.
19 Brake Linings.
20 Brooms, Fire.
21 Building Materials, Fire Retardant.
22 Caps, Firemen's.
23 Chains, Non-Skid Fire Apparatus.
24 Chassis for Fire Apparatus.
25 Chemical Engines and Tanks.
26 Chimney Fire Fusees & Compounds.
27 City Service Trucks.
28 Coats & Suits, Firemen's Quick Hitch.
29 Combination Chemical & Hose Cars.
30 Cutting & Welding Equipment Blow Torch.
31 Cutting & Welding Equipment, Electric.
32 Deluge Sets.
33 Door Openers, Fire Station, Automatic.
34 Extinguishers, Calcium Chloride.
35 Extinguishers, Carbon Dioxide.
36 Extinguishers, Soda-Acid.
37 Extinguishers, Carbon Tetrachloride.
38 Extinguishers, Foam.
39 Extinguishers, Powder.
40 Fire Boat Nozzle Equipment.
41 Fire Department Supplies, General.
42 Fire Exit Devices, Door Opening.
43 Fire Alarm Posts.
44 Fire Escapes, Portable.
45 Fire Escapes, Rigid.
46 First Aid Equipment
47 Flare Lights.
48 Flashlights, Hand.
49 Foam Generating Apparatus.
50 Foam Liquid for Extinguishers.
51 Gas Masks and Respirators.
52 Gas & Smoke Helmets.
53 Goggles, Firemen's.
54 Helmets, Metal, etc.
55 Hose Carts, Reels & Racks.
56 Hose Clamps.
57 Hose, Fire.
58 Hose, Chemical.
59 Hose Holders.
60 Hose Jackets.
61 Hose Standardization Tools.
62 Hydrant Draining Pumps.
63 Hydrants, Fire.
64 Jacks for Fire Trucks.
65 Jacks, Shoring & Prying.
66 Ladders, Fire.
67 Lightning Arresters.
68 Motorcycles, Fire Dept. Equipped
69 Nets, Life.
70 Nozzles, Pipes & Misc. Brass Goods.
71 Packings, Pumps.
72 Pads, Pole Hole.
73 Paints, Fire Resisting.
74 Priming Ether, Motor.
75 Pumping Cars, Standard.
76 Pumping Cars, Foam.
77 Pumps, Fire Apparatus.
78 Pumps, Fire Service, Stationary
79 Pumps, Portable for Fire Protection.
80 Record Books, Fire.
81 Relief Valves.
82 Reviving Apparatus, Oxygen.
83 Rubber Clothing.
84 Salvage Covers.
85 Searchlights.
86 Shingles, Fire Retardant.
87 Shirts, Firemen's Special.
88 Sirens, Apparatus & Chiefs' Cars.
89 Sliding Poles.
90 Soda & Acid Chemicals.
91 Spark Plugs, Fire Apparatus & Motorcycles.
92 Squad and other Auxiliary Cars.
93 Sprinkler Head Shut-Offs.
94 Sprinkler Supervisory Service.
95 Sprinkler Systems, Automatic, Foam.
96 Sprinkler Systems, Automatic, Water.
97 Steam Fire Engines.
98 Syphons, Water
99 Tarpaulins & Fire Blankets.
100 Tetrachloride Chemicals.
101 Thawing Equipment, Hydrant.
102 Tires, Fire Apparatus, Pneumatic, Solid, Cushion and Non-Skid.
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104 Traffic Clearing Systems.
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111 Whistles, Fire Apparatus.
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Nos. .....
Nos. .....
Nos. .....

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For Information on Any Equipment Not Listed, Write on This Page or Use Separate Sheet

3-18

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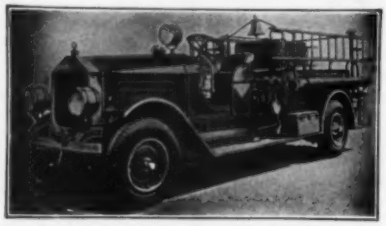

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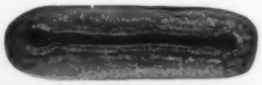

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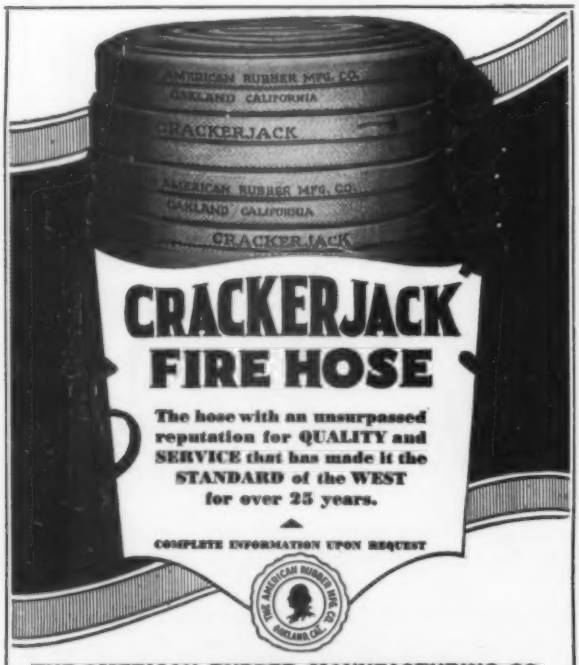

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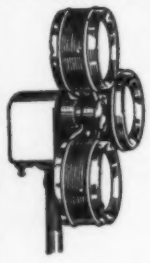

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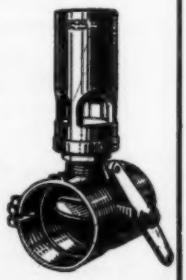

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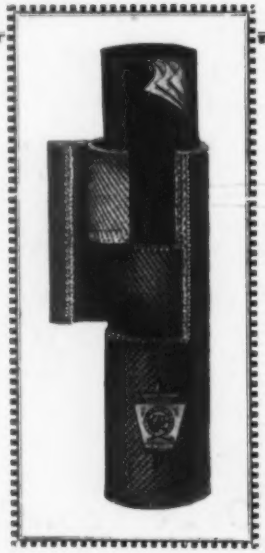

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